

# GENERAL PLAN

Sausalito, California

DECEMBER 1970

CITY OF SAUSALITO  
COMMUNITY DEVELOPMENT DEPT.  
P.O. BOX 1279  
SAUSALITO CA 94966





GENERAL PLAN FOR SAUSALITO  
AS AMENDED (1979)

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Approved by the City Planning Commission

September 9, 1970  
by Resolution 1970-32

Adopted by the City Council

December 1, 1970  
by Resolution No. 2200

This plan is based on the Proposed Revised General Plan dated  
July, 1970 prepared by William Spangle & Associates

CITY OF SAUSALITO, CALIFORNIA

DECEMBER, 1970

The preparation of this report was financed in part through a comprehensive  
planning grant from the Department of Housing and Urban Development

RECEIVED THE FOLLOWING INFORMATION FROM THE BUREAU OF THE  
INTERNAL SECURITY - RACIAL MATTERS DIVISION

DATE: 10/15/54

TO: SAC, NEW YORK

FROM: SAC, NEW YORK (100-100000) (P)  
SUBJECT: [REDACTED]

RE: [REDACTED]

NY 100-100000 (P)  
100-100000 (P)

NY 100-100000 (P)

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# AMENDMENTS TO GENERAL PLAN ADOPTED BY CITY COUNCIL SINCE

RESOLUTION NO. 2200 12-1-70

| RESOLUTION NO. | AMENDMENT                                                                                                                                                                     | DATE     |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 2321           | Marinship Plan - Deleted portion of road 4b and created at 20 foot pedestrian path from Road 4a to intersection of Roads 3 and 5.                                             | 5-2-72   |
| 2434           | Open Space Element - Added element to General Plan                                                                                                                            | 1-2-74   |
| 2598           | Whiskey Springs - Added language for criteria to development of former distillery property.                                                                                   | 2-17-76  |
| 2650           | Railroad right-of-way. Amends General Plan Diagram and adds language for area known as "railroad right-of-way from Johnson Street to Mono Street.                             | 11-23-76 |
| 2660           | Wolfback Ridge - changed language to clarify density requirements.                                                                                                            | 12-21-76 |
| 2663           | Waterfront - Various changes to General Plan text for the waterfront area between the Sandspit and the northern City limits, east of Bridgeway.                               | 12-21-76 |
| 2672           | South Ridgeland - changing to density designation on the Plan Diagram from "Medium" to "Medium High" for certain lands in the vicinity of Sausalito Blvd. and Edwards Avenue. | 2-1-77   |
| 2725           | Plan Diagram - Various changes to the General Plan Diagram to establish conformance with the Zoning Ordinance.                                                                | 12-6-77  |
| 2726           | General Plan Text - Various changes to the General Plan text to establish conformance with the Zoning Ordinance                                                               | 12-6-77  |

|      |                                                                                                                                                                           |         |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 2768 | Elements - added Scenic Highway, Noise, Seismic Safety and Housing Elements to the General Plan                                                                           | 7-18-78 |
| 2778 | Circulation System, Marinship - Changed road alignment for Marinship Plan Diagram and amended text description for roads in Marinship.                                    | 9-19-78 |
| 2786 | Valhalla property - Changed General Plan Diagram designation from "high" density residential to "neighborhood commercial".                                                | 11-7-78 |
| 2856 | General Plan Text - Various changes to the General Plan Text relating to obsolete and/or inconsistent statements and to update the General Plan Tables and Plan Exhibits. | 10/2/79 |



# TABLE OF CONTENTS

|                                                                     | Page                    |
|---------------------------------------------------------------------|-------------------------|
| Sausalito Today                                                     | 1                       |
| GENERAL PLAN                                                        | 4                       |
| Introduction                                                        | 4                       |
| Part I - Overall Aspects of the Plan                                | 6                       |
| Part II - Basic Elements of the Plan                                | 9                       |
| Land Use Element                                                    | 9                       |
| Circulation Element                                                 | 23                      |
| Part III - Plan Diagram                                             | 29                      |
| Part IV - Supplementary Elements (reserved for future use)          |                         |
| Open Space Element                                                  | 10                      |
| Housing Element                                                     |                         |
| Seismic Safety/Safety Element                                       |                         |
| Scenic Highways Element                                             |                         |
| Noise Element                                                       |                         |
| Part V - General Plans for Sub-areas                                | V.1                     |
| Marinship General Development Plan                                  | V.7                     |
| General Development Plan, Central Waterfront Area                   |                         |
| .....                                                               |                         |
| Table I - General Plan Land Use Acreages                            | following p. 9          |
| Table II - Population and Dwelling Units: 1966 and Holding Capacity | following p. 11         |
| Map, Planning Areas                                                 | following p. 4          |
| Plan Diagram, Part III                                              | (in pocket, back cover) |

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## SAUSALITO TODAY

This is Sausalito--a wooded hillside community fronting on beautiful Richardson Bay in a setting unequalled in the San Francisco Bay Area if not in the United States. This beauty combined with a central location in the Bay Area means that Sausalito faces many pressures not faced by other communities in the region--pressures for high-density apartments, yachting facilities and tourist activities.

Sausalito is an old community.

For nearly one hundred years many of its residents have gone to work in San Francisco initially by ferry

and now both by ferry and on the Golden Gate Bridge by car or bus.

In spite of time and change, much of the City has remained as it was 40 or 50 years ago. "The Hill" is still much as it was shortly after the turn of the century. About that time, the large land holdings were divided, and many of the still existing houses built in the present pattern. Two or three generations have grown up in these roomy well-kept brown shingle homes. Their windows, which give them a contemporary air in spite of their years, look down on the same bay waters.

Along the waterfront, also, many buildings date back to the turn of the century. In "Old Town"

and "New Town" are houses of about the same vintage--modest houses on rather small and more level lots. Many are now in early stages of deterioration, and some have already been converted to apartments or replaced with new buildings.

The most striking changes in the look of Sausalito come from the new apartments and the expansion of waterfront activities and land fill from the Sandspit to Marinship. New apartments step up from the waters in "Old Town" and circle the northern end of the City. New houses are now beginning to cover the steeper hills above "Old Town", "Spring Street Valley" and "Nevada Street Valley" and a few now dot Wolfback Ridge across the freeway.

Building proceeded at a moderate rate from 1950 to 1960, bringing an increase in population from 4,828 to 5,331. A boom in apartment house construction in the early 1960's brought the population to 6,700 by 1965. Of the 600 housing units built between 1960 and 1965, only 50, (less than 10%) were single family residences. This trend is continuing though at a slower rate, and Sausalito is changing from a place of homes for families with children to a community with a central section of single-family homes--"The Hill"--flanked and



outnumbered by apartments to the south and north.

Sausalito still holds its early attraction for weekend visitors. Even in the "eighties" and "nineties" San Franciscans came here on weekends--some to sail from the San Francisco Yacht Club (now the Ondine) and others to drink beer and picnic. But now boats are berthed by the hundreds and a new dimension has been added by sheer numbers of tourists, automobile-bound and on foot. The Sausalito setting combined with fine restaurants and a variety of stores geared to the tourist, attracts thousands of people to Sausalito during the summer months in particular, and on weekends throughout the year. The revenues to the City from these outsiders are important for the City. But the side effects of these activities are felt throughout Sausalito, particularly in traffic and parking congestion at peak periods and pressure for more commercial development along the limited stretch of valuable waterfront. Thus, the major problem--the need for a balance between Sausalito as a place in which to live and its role as a tourist center in the Bay Area. Sausalito's ties with the Bay Area are not solely in terms of tourists, but are even more significantly in the home-work relationship of its residents. Sausalito provides a delightful urbane setting for those seeking a close-in living place which is part of the San Francisco milieu.

Although now a mature community with a general pattern of development well established, Sausalito has in store many changes. Some changes are inevitable, as buildings grow older and duplexes and apartments replace many of the smaller homes on small lots. Other changes will depend upon or be shaped by major public and private decisions. The Marinship area contains large sections of idle land which, because of a prime location in the Bay Area and proposed public improvements, may soon attract further building activity. Elsewhere in Sausalito, old small homes on small lots in the more level areas are slowly being replaced by apartments and duplexes. Thus, Sausalito, which grew slowly, house by house fitted to the steep hills, only a few a year, now faces the prospects of more and more apartments and duplexes, larger scale buildings and perhaps a major change in the configuration of its shoreline. The problems of Sausalito can be summarized as follows:

1. Preserving and enhancing the unique meeting of land and water which forms the unsurpassed waterfront.
2. Maintaining the City as a residential com-



munity in the face of the increasing influx of visitors seeking to enjoy the unique qualities of the Sausalito waterfront.

3. Encouraging the provision of a housing stock geared to the desires of the community.
4. Maintaining relationships between trees, buildings and water, particularly in the newer areas so as to continue the quality and scale of the Sausalito townscape.
5. Handling parking and traffic so as to provide convenience for residents while meeting reasonable requirements of business.

Since the original adoption of the General Plan in 1959, the City has been moving a step at a time towards solution of these problems. Considerable progress has been made. Sub-area plans have been prepared and adapted for Marinship (1963) and the Central Waterfront (1970). The General Plan was reviewed and updated in 1967 with further modifications in 1970 to reflect policies incorporated in the Central Waterfront General Development Plan. Through public discussion and public hearings which were part of the process of preparing the Central Waterfront Plan, increasing consensus was developed on several important issues. The City has been able to move ahead with several projects including acquisition and development of Princess Park, more recently renamed and dedicated "Yee Tock Chee Park", reconstruction and enhancement of the portion of Bridgeway along the waterfront. Agreement has been reached on the need to phase out parking in the Park Plaza area and expand the City Park in that location. And most significantly, a

bond issue was approved in the June 1970 primary to provide funds to acquire the waterfront park and open water area so long discussed and planned for. Through the efforts of a dedicated group of citizens, the Earl F. Dunphy Park is now located on this site.

In 1974, the City commenced a review of the General Plan principally in the area of the waterfront adjacent to Richardson Bay. In 1976 and 1977, the City adopted further modifications to the General Development Plans for Marinship and the Central Waterfront Areas. In 1979, the City engaged in a general review and update of the General Plan, bringing the General Plan into its present composition.

Other steps have included preparation and adoption of a new zoning ordinance in 1963 with significant amendments in 1969 and 1978 as a step towards establishing appropriate controls for the Central Waterfront.

There is a real challenge to continue to engage the interest of all the citizens of Sausalito on the long-range plans for the City. Thus, a particularly important requirement both for the General Plan proposal and for development programs to carry the plan out, is the recognition of the wide variety of interests and needs of residents, businesses, and property owners generally.







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1819-1820 1821-1822

1823-1824 1825-1826



# GENERAL PLAN CITY OF SAUSALITO

## INTRODUCTION

1 This document constitutes the General Plan of the City of Sausalito, California. It has been developed pursuant to the State law governing local planning (Chapter 3, Title 7 of the Government Code). Parts I, II and III deal with the entire Planning Area. Part IV is reserved for individual functional element plans--plans for area-wide services or facilities such as transportation, recreation, beautification, drainage, or undergrounding of utilities, etc. Part V includes general development plans for sub-areas of the Planning Area such as the Marinship General Development Plan and the General Development Plan, Central Waterfront Area. (See Planning Areas map on next page.)

2 Not Used

3 The Plan is a long-range, comprehensive and general guide to the future physical development of the Sausalito Planning Area. It is intended

that the majority of the proposals shown on the Plan be carried out over a span of time of 15 to 20 years. Some features of the Plan should be executed within a few years, while other features are intended to be realized later in the planning period.

The Plan is comprehensive in that it deals with all of the land uses, services and facilities needed to make the Sausalito Planning Area a functioning component of Southern Marin County and the San Francisco Bay Area. Space has been allotted for all uses of land presently foreseen as needed within the Planning Area to achieve the goals of the residents. These land uses and the necessary circulation facilities have been considered one in relation to the other with the objective of securing balanced and harmonious development within the Planning Area.

The Plan includes recommendations for land use, community facilities and services, population density, building intensity, and circulation. In Part II these subjects are handled under the major headings of Land Use and Circulation.

The Plan is general in nature and, therefore,

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8. Based on an evaluation of the development potential of lands within the Planning Area, the stated objectives of residents and the locational relationships of major work and shopping areas, the residential areas proposed in this Plan have been designed to accommodate a maximum population of slightly less than 14,000 people for the entire Sausalito Planning Area and approximately 9,500 for the City of Sausalito.
9. It is estimated that the population within the present city limits of Sausalito will be approximately 8500 by 1995.
10. The Planning Area includes lands within the present city limits and adjoining unincorporated

lands bearing relation to the planning of the City. Most of Fort Baker, all of Marin City, and the lands along Richardson Bay from Waldo Point to Manzanita are within the Planning Area. The limits of the Area are defined by major topographical features. Thus, it includes all of the land east of Wolfback Ridge and its extensions from a point just westerly of the Golden Gate Bridge to the Richardson Bay Bridge and extensive water areas in Richardson Bay and San Francisco Bay.

There should be a process of annual review to evaluate changes that have taken place in the community in relation to the goals and objectives set forth in the Plan. This will reveal whether modifications should be made in the Plan or new measures inaugurated to give better direction to development. Major changes in the Plan should be made only after thorough consideration of all implications. The Plan should be thoroughly reviewed and updated at intervals of not more than five years, so that it will always cover a 15 to 20 year time span. In this way, it will continue to provide a long-range up-to-date guide reflecting the aims of the citizens.

In order to meet changing conditions, incorporate results of more detailed studies and show more precisely what can now be foreseen only approximately, the Plan is organized so that amendment, when shown to be necessary, can be accomplished in an orderly manner. For convenient reference each paragraph is numbered.

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## PART 1 - OVERALL ASPECTS OF THE PLAN

### ASSUMPTIONS

100 The proposals in the General Plan are based in part on generally accepted forecasts. Though these forecasts are held to be generally correct, they are stated here as assumptions. Some of these assumptions are more important to the realization of the General Plan than others, but they all state assumed future conditions of concern to Sausalito.

1. After a long period of rapid expansion during the '60's and '70's, the U.S. economy can be expected to enter a period of much slowed activity. While there may be periods of prosperity and recessions, the upward economic trend will be much more gradual than the past 20 years.
2. The Nation, State and Bay Area will experience a period of reduced productivity and some shortages including, but not limited to, energy. More people will come to accept limits.
3. Sausalito's temperate climate and close proximity to a major employment base will reduce the impacts of energy deficiency experienced by other areas of the Bay Area, State and Nation. These characteristics, however, will contribute to the increased demand for housing in Sausalito. This increased demand will continue to inflate the cost of housing in Sausalito at a higher rate than other areas of the Bay Area, State and Nation.

4. Sausalito will continue to retain a substantial portion of its area for single-family residences. However, due to economic pressures, the attraction of multiple family dwellings will continue to grow.
5. The population of Sausalito will continue to be oriented toward the young, upwardly mobile (late '20's, 30's and 40's) with small families, and more than one income/family unit.
6. There will be a need for improved public transportation facilities to make possible expeditious, safe and convenient travel between Sausalito and other parts of the Bay Area. The residents of Sausalito will continue to engage in a wide range of economic, social and cultural activities at diverse locations.
7. A substantial demand will continue for recreational and tourist facilities in Sausalito geared to a larger market than the City itself.

Of over-riding importance to the future of Sausalito is the quality of air and water and the control of Bay fill. Programs have been instigated by such governmental agencies as BCDC and Army Corps of Engineers. The City of Sausalito should continue to make a strong effort to insure that these plans/programs are carried out in the best interests of the community.

## MAJOR COMMUNITY GOALS

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Goals included below are general in nature and basic to the entire General Plan. Goals related to specific aspects of the Plan are stated in other appropriate sections. The Plan is designed and intended to assist in achieving these major local goals:

1. Protect and enhance Sausalito as a residential community giving priority to facilities and services for local residents.
2. Provide facilities for visitors in a manner designed to minimize interference with the use and enjoyment of the community by local residents.
3. Protect the present character of Sausalito's residential areas.
4. Protect and enhance the waterfront, Sausalito's greatest natural resource, for the benefit of the most residents. Promote and encourage the future development of commercial fishing as an industry in Sausalito.
5. Encourage residential, commercial, and recreational development in appropriate locations.
6. Provide and improve new civic, cultural and recreational facilities, primarily for the use of residents in the Civic Center area.
7. Provide public boating facilities along the Waterfront.
8. Encourage non-resident traffic to enter the City from the north.
9. Retain adequate parks and playgrounds throughout the City for local residents.
10. Bring the Marinship area into more productive use.
11. Improve the appearance of the City, particularly the northern waterfront.
12. Encourage development of alternate forms of transportation, such as transit, bicycle, pedestrian walks, designed to discourage use of the automobile.
13. Retain former City Hall on Bridgeway for future public use.
14. Establish a plan with timetable for the undergrounding of all utilities by gas, electric, telephone and Cable Television Companies.
15. Establish an Historic District for preservation and improvement of the Downtown Area.



14. Establish a plan with timetable for the undergrounding of all utilities by gas, electric and telephone companies.

## FUNCTIONAL ORGANIZATION

- 102 In general, residential uses are planned for the hill areas and more intensive non-residential uses are planned for the waterfront area. Six residential units are defined within the City - Old Town, The Hill, New Town, Spring Street Valley, Nevada Street Valley, Wolfback Ridge. Marin City comprises an additional residential unit beyond the City boundary. In general, the highest density residential areas are in the lower portion of these areas close to service facilities and Bridgeway.
- 103 The Central Waterfront Area, occupying the heart of the City and stretching from Marinship to mid-block south of Princess Street, is the focus for resident and tourist-serving facilities--civic, recreational and commercial. This is the area in which the existing character must be very carefully protected, with space given over to the automobile kept to an absolute minimum. This is the area of the highest concentration of people. Tourist-serving facilities should be confined to the area shown as Central Commercial on the Part V Plan Diagram, Article 3 in order to prevent the extension of major automobile and visitor activity to other areas. The area shown on the Part V Plan Diagram, Article 3 as Commercial Waterfront, Harbor and Open Water should include ~~resident-serving and marine-~~oriented uses that preserve the area's waterfront

The Marinship area to the north is comprised of two land use areas: The Waterfront area and the industrial area. The waterfront area provides primarily for water-dependent recreational and water-dependent industrial activities whereas the industrial area provides primarily for industrial and industrial-compatible commercial activities.

103.1

Further north along Richardson Bay, recreational and waterfront uses are proposed in the narrow band of land along U. S. 101. This area is under further study by Marin County.

104

The circulation system is designed to bring major traffic into the City from the north via Bridgeway. Off-street parking in the Central Waterfront Area will be limited in amount to that needed for resident-serving businesses and other uses requiring parking in close proximity. Other traffic routes in the City will function primarily to provide ingress and egress and connections with the City for local residents.

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The general concepts of functional organization set forth above are treated in more detail in subsequent sections of this plan.

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## PART II - BASIC ELEMENTS OF THE PLAN

200 The Plan is composed of two basic elements, the use element and the circulation element. Each element includes statements of objectives, principles and standards and descriptions of plan proposals. Interpretation and application of the policy statements set forth under the Land Use and Circulation headings should be done in the context of the more general overriding policies included in Part I. The descriptive sections of this text elaborate and extend the information included on the Plan Diagram, Part III of this Plan.

### LAND USE ELEMENT

201 The land use element includes guidelines for land occupancy and describes the location and distribution of land uses. Land use interrelationships and land use-circulation relationships are also defined. The areas of the various proposed land uses are given in Table I (following this page).

202 Land use proposals include those for residential areas, community facilities and services, and region-serving facilities. For the purposes of this Plan all land uses are grouped into the following categories: residential; commercial; institutional; and park, recreation and open

spaces. In the following sections, under headings for each of the above major categories, policy statements are followed by a description of the Plan proposals.

### General Objectives:

1. Provide a variety of residential uses and the related facilities and services that will enhance the convenience and enjoyment of residents.
2. Preserve open water areas and provide public access to the water to the maximum extent feasible.
3. Reserve the waterfront area primarily for the uses that enhance public use and enjoyment of the waterfront or that depend on the water for their existence.
4. Provide opportunities for expansion of economic activity to serve residents and visitors to the extent consistent with the general goals and other objectives of this Plan.
5. Protect and enhance existing aesthetic qualities in all parts of the area and, where appropriate, create new beauty.

203

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes the need for transparency and accountability in financial reporting.

2. The second part of the document outlines the various methods and techniques used to collect and analyze data. It includes a detailed description of the experimental procedures and the statistical analysis performed.

3. The third part of the document presents the results of the study. It includes a series of tables and graphs that illustrate the findings of the research. The data shows a clear trend of increasing activity over time.

4. The fourth part of the document discusses the implications of the findings. It suggests that the results have significant implications for the field of study and may lead to further research in this area.

5. The fifth part of the document provides a conclusion and summarizes the key points of the study. It reiterates the importance of accurate record-keeping and the need for ongoing research in this field.

6. The sixth part of the document includes a list of references and a bibliography. It cites the various sources used in the research and provides a comprehensive overview of the literature in this area.

7. The seventh part of the document contains a list of appendices and additional information. It includes a detailed description of the equipment used in the study and a list of the personnel involved in the research.

8. The eighth part of the document discusses the limitations of the study. It acknowledges the potential sources of error and the need for further research to confirm the findings.

9. The ninth part of the document provides a list of acknowledgments and thanks. It expresses gratitude to the individuals and organizations that provided support and assistance during the course of the study.

10. The tenth part of the document includes a list of figures and tables. It provides a detailed description of each figure and table and explains how they relate to the findings of the study.

11. The eleventh part of the document contains a list of footnotes and additional information. It includes a detailed description of the methods used in the study and a list of the personnel involved in the research.

12. The twelfth part of the document provides a list of references and a bibliography. It cites the various sources used in the research and provides a comprehensive overview of the literature in this area.

13. The thirteenth part of the document contains a list of appendices and additional information. It includes a detailed description of the equipment used in the study and a list of the personnel involved in the research.

14. The fourteenth part of the document discusses the limitations of the study. It acknowledges the potential sources of error and the need for further research to confirm the findings.

TABLE 1 - GENERAL PLAN LAND USE ACREAGES

All figures are in gross acres <sup>a</sup>

| Area                                 | Residential      | Commercial |       |        | Dry-Land<br>Water-front | Ind. | Parks, Recreation & Open Space |                  |        |       |                         | Inst.<br>School | Circulation        |      | Areas Under Study |
|--------------------------------------|------------------|------------|-------|--------|-------------------------|------|--------------------------------|------------------|--------|-------|-------------------------|-----------------|--------------------|------|-------------------|
|                                      |                  | Central    | Comm. | Neigh. |                         |      | Reg.                           | Comm.            | Neigh. | Water | Open Space <sup>b</sup> |                 | US 101             | Pkg. |                   |
| Residential Units <sup>c</sup>       |                  |            |       |        |                         |      |                                |                  |        |       |                         |                 |                    |      |                   |
| Old Town                             | 86.5             |            |       | 2.3    |                         |      |                                |                  | 0.9    |       |                         |                 |                    |      |                   |
| The Hill                             | 157.8            |            |       |        |                         |      |                                |                  | 0.3    |       |                         |                 |                    |      |                   |
| New Town                             | 139.7            |            |       |        |                         |      |                                |                  | 0.1    |       |                         |                 |                    |      |                   |
| Spring Street Valley                 | 46.0             |            |       | 1.3    |                         |      |                                |                  | 0.4    |       | 12.0                    |                 |                    |      |                   |
| Nev. St. Val                         | 87.1             |            | 2.28  |        |                         |      |                                | 5.1              |        |       |                         | 15.4            |                    |      |                   |
|                                      |                  |            |       |        |                         |      |                                |                  |        |       |                         |                 |                    |      |                   |
| Marin City (Uninc.)                  | 315.3            |            | 8.9   |        |                         |      |                                | 13.1             |        |       | 5.4                     |                 |                    |      | 36.0              |
| Wolfb'k Ridge (Inc.)                 | 15.1             |            |       |        |                         |      | 162.4                          |                  |        |       | 1.6                     |                 |                    |      |                   |
| Wolfb'k Ridge (Uninc.)               | 13.3             |            |       |        |                         |      | 27.4                           |                  |        |       |                         |                 |                    |      |                   |
| Central Waterfront <sup>d</sup>      | 0                | 11.5       | 12.1  |        | 16.7                    |      |                                | 21.4             |        | 57.5  |                         |                 |                    | 4.6  |                   |
| Marinship <sup>e</sup>               | <sup>f</sup> 4.7 |            | 4.6   |        | 31.00                   | 65.5 |                                | 2.3 <sup>h</sup> |        | 41.2  |                         |                 |                    |      |                   |
| Richardson Bay (Uninc.) <sup>g</sup> | 0                |            |       |        | 26.2                    |      | 14.7                           |                  |        |       |                         |                 | 117.4              |      |                   |
| Other Unincorporated <sup>i</sup>    | 0                |            |       |        |                         |      | 406.0                          |                  |        |       | 30.3                    |                 | 117.1              |      |                   |
| Planning Area Totals                 | 865.5            | 11.5       | 27.88 | 3.6    | 73.9                    | 65.5 | 610.5                          | 41.9             | 1.7    | 98.7  | 49.3                    | 15.4            | 378.8 <sup>j</sup> | 4.6  | 36.0              |

AREA TOTAL: 2284.8 A

for footnotes see next page



TABLE 1 - GENERAL PLAN LAND USE ACREAGES

All figures are in gross acres <sup>a</sup>

| Area                                 | Resi-<br>dential        | Commercial |              |        | Dry-<br>Land<br>Water-<br>front | Ind. | Parks, Recreation & Open Space |                         |        |                       |               | Inst.<br>School | Circulation               |            | Areas<br>Under<br>Study |
|--------------------------------------|-------------------------|------------|--------------|--------|---------------------------------|------|--------------------------------|-------------------------|--------|-----------------------|---------------|-----------------|---------------------------|------------|-------------------------|
|                                      |                         | Central    | Comm.        | Neigh. |                                 |      | Reg.                           | Comm.                   | Neigh. | Water<br><sup>b</sup> | Open<br>Space |                 | US<br>101                 | Pkg.       |                         |
| Residential Units <sup>c</sup>       |                         |            |              |        |                                 |      |                                |                         |        |                       |               |                 |                           |            |                         |
| Old Town                             | 86.5                    |            |              | 2.3    |                                 |      |                                |                         | 0.9    |                       |               |                 |                           |            |                         |
| The Hill                             | 157.8                   |            |              |        |                                 |      |                                |                         | 0.3    |                       |               |                 |                           |            |                         |
| New Town                             | 139.7                   |            |              |        |                                 |      |                                |                         | 0.1    |                       |               |                 |                           |            |                         |
| Spring Street Valley                 | 46.0                    |            |              | 1.3    |                                 |      |                                |                         | 0.4    |                       | <u>12.0</u>   |                 |                           |            |                         |
| Nev. St. Val                         | <u>87.1</u>             |            | <u>2.28</u>  |        |                                 |      |                                | 5.1                     |        |                       |               | 15.4            |                           |            |                         |
|                                      |                         |            |              |        |                                 |      |                                |                         |        |                       |               |                 |                           |            |                         |
| Marin City (Uninc.)                  | 315.3                   |            | 8.9          |        |                                 |      |                                | 13.1                    |        |                       | 5.4           |                 |                           |            | 36.0                    |
| Wolfb'k Ridge (Inc.)                 | 15.1                    |            |              |        |                                 |      | <u>162.4</u>                   |                         |        |                       | 1.6           |                 |                           |            |                         |
| Wolfb'k Ridge (Uninc.)               | <u>13.3</u>             |            |              |        |                                 |      | <u>27.4</u>                    |                         |        |                       |               |                 |                           |            |                         |
| Central Waterfront <sup>d</sup>      | 0                       | 11.5       | 12.1         |        | <u>16.7</u>                     |      |                                | 21.4                    |        | 57.5                  |               |                 |                           | 4.6        |                         |
| Marinship <sup>e</sup>               | <sup>f</sup> <u>4.7</u> |            | <u>4.6</u>   |        | <u>31.00</u>                    | 65.5 |                                | <u>2.3</u> <sup>h</sup> |        | 41.2                  |               |                 |                           |            |                         |
| Richardson Bay (Uninc.) <sup>g</sup> | 0                       |            |              |        | <u>26.2</u>                     |      | 14.7                           |                         |        |                       |               |                 | 117.4                     |            |                         |
| Other Unincorporated <sup>i</sup>    | 0                       |            |              |        |                                 |      | 406.0                          |                         |        |                       | 30.3          |                 | 117.1                     |            |                         |
| Planning Area Totals                 | <u>865.5</u>            | 11.5       | <u>27.88</u> | 3.6    | <u>73.9</u>                     | 65.5 | <u>610.5</u>                   | <u>41.9</u>             | 1.7    | 98.7                  | <u>49.3</u>   | 15.4            | <u>378.8</u> <sup>j</sup> | <u>4.6</u> | 36.0                    |

AREA TOTAL:

2284.8 A

for footnotes see next page

TABLE 1 - GENERAL PLAN LAND USE ACREAGES (Cont'd)

Footnotes

- a Gross acres include the particular land use being measured plus one-half the area of any boundary streets.
- b Water areas included are those lying between the shoreline and pierhead lines shown on the Plan Diagram.
- c Residential units are as shown on the Plan Diagram.
- d The Central Waterfront includes the lands extending from Mono Street to mid-block south of Princess Street. The area extends inland of Bridgeway to Girard, Glen and Bulkley Avenues as shown on the Plan Diagram, Article 3.
- e Marinship includes the area northeast of Bridgeway from the northern City limits to the southern side of the peninsula at Mono Street.
- f The Marinship residential area includes houseboats and landbased dwelling units (minimum 10,000 sq.ft. parcel area per dwelling unit) within the 4.7 acre area north of Gate 5 Road between Clipper Yacht Harbor and the Northern City limits.
- g Richardson Bay (Uninc.) includes all uses along the waterfront north of the City limits.
- h Marinship Park is a 2.3 Acre area acquired from the Federal Government for use as a community park.
- i Other unincorporated areas include the Golden Gate National Recreation Area and U.S. 101.
- j This total includes 144.3 acres of U.S. 101 within the incorporated area of the City but which is not within the planning sub-areas and is not carried in the body of the table.





## 204 General Principles:

1. Land uses should be grouped for mutual compatibility and to maintain and strengthen interrelationships among uses.
2. The most intensive land uses should be located where they can be readily served by necessary transportation facilities.

## RESIDENTIAL AREAS

### Introduction

Sausalito, incorporated in 1893, is one of the older suburban communities in the Bay Area and has experienced rapid growth since World War II. The U.S. Census Bureau recorded a 76% increase in the number of housing units in the Sausalito survey area in the period 1950-1970. A 1975 study (see Table II) estimated that full theoretical development potential would be reached with the addition of about 1000 new housing units. Judging by the average growth rate since 1970, the City may reach full capacity by 1995. The rate of growth may be affected by the availability of water. With a minimum amount of undeveloped open land available for residential use, most residential development in the City will be of an "infill" character.

## 205 Objectives:

1. Formulate programs to preserve and increase the variety of the housing stock in order to serve all economic segments of the community.
2. Secure affordable and appropriate housing for groups possessing special housing needs, such as low-moderate income persons, elderly residents, and families with children.
3. Promote and ensure open and free choice of housing for all persons regardless of income, age, race or ethnic background.
4. Assure that residential development reflects and is harmonious with the character of the Sausalito environment and is compatible with its existing neighborhoods.
5. Provide for variety, interest, and maximization of opportunities for views and privacy for all properties through careful site planning, building design, and landscape treatment.
6. Consider the following when evaluating condominium conversion projects:  
a) balance between owned and rental units within the community; b) balance between high, moderate, and low income housing within the community; c) the possible effect of conversion on neighborhood property values and taxes.
7. Exclude residential use of the waterfront and industrial areas north of El Portal and east of Bridgeway, with the exception of the small community of land-based residences and houseboats at the northern City limits.
8. Maintain a level of residential construction in line with the Marin Countywide Plan and growth control targets deemed appropriate for the Richardson Bay Planning Area.

206 Principles:

Distribution of land use intensities should be guided by considerations of access to transportation facilities, the capacity of the street system, the need for conservation of natural resources, the impact on public service facilities, urban design factors, topography and other factors as follows:

1. The highest intensity uses should be located on relatively level land close to local shopping areas, other local service facilities, and transportation facilities. Intensity should decrease as the distance from these facilities increases.
2. Intensity should decrease as steepness of terrain increases.
3. The lowest intensities and largest lots should be located on steep hill-sides where it is necessary to limit storm run-off, prevent erosion, preserve existing vegetation, and maintain the scenic quality of the terrain.

207 Standards:

Residential areas are shown in four land use intensity categories: high, medium-high, medium and low. Each category includes a range in the appropriate amount of net residential land area that should be provided for each dwelling unit. "Net land area" is the area of land exclusive of streets available for residential building and accessory uses.

High - This category is confined to areas intended primarily for apartment development.  
- Net land area per dwelling unit, 1,500 - 2,000 sq.ft./d.u.

Medium-High - includes areas intended for duplex and single-family dwellings.

Medium - includes most of the area devoted to single-family residences and a small houseboat area.

Low - Includes low intensity residential development, almost entirely single-family in nature.  
- Net land area per dwelling unit, 20,000 sq.ft.  
- one acre/d.u.

Development Potential

208

Based on a 1975 count of existing dwelling units and calculation of an allowable number of dwelling units for each individual parcel, an estimate of the residential development potential of each planning area is displayed on Table II.

TABLE II - POPULATION AND DWELLING UNITS: 1977 AND DEVELOPMENT POTENTIAL

| Residential Unit  | Land Use Intensity | ACREAGE      |              |              | 1978 ESTIMATE |                 |            |             | DEVELOPMENT POTENTIAL |                |            |             |
|-------------------|--------------------|--------------|--------------|--------------|---------------|-----------------|------------|-------------|-----------------------|----------------|------------|-------------|
|                   |                    | Gross Res.   | Streets      | Net Res.     | DU            | DU/Net Res. Ac. | Pop./DU    | Pop.        | DU                    | DU/Net Res.Ac. | Pop. DU    | Pop         |
| OLD TOWN          | Total              | 86.5         | 23.8         | 62.7         | 830           | 13.1            | 1.9        | 1577        | 965                   | 15.2           | 1.9        | 1830        |
|                   | High               | 16.5         | 4.5          | 12.0         | 237           |                 |            |             | 295                   | 24.6           | 1.9        | 560         |
|                   | Medium-High        | 56           | 14.6         | 41.4         | 537           |                 |            |             | 613                   | 14.8           | 1.9        | 1160        |
|                   | Medium             | 14           | 4.7          | 9.3          | 56            |                 |            |             | 57                    | 12.1           | 1.9        | 110         |
| THE HILL          | Total              | 157.8        | 37.6         | 120.2        | 911           | 7.6             | 2.0        | 1822        | 1256                  | 10.4           | 2.1        | 2640        |
|                   | High               | 30.2         | 5.4          | 24.8         | 295           |                 |            |             | 526                   | 21.2           | 2.1        | 1110        |
|                   | Medium-High        | 6.8          | 1.1          | 5.7          | 104           |                 |            |             | 119                   | 20.9           | 2.1        | 250         |
|                   | Medium             | 120.8        | 31.1         | 89.7         | 523           |                 |            |             | 611                   | 6.8            | 2.1        | 1280        |
| NEW TOWN          | Total              | 139.7        | 31.1         | 108.6        | 731           | 7.5             | 2.2        | 1608        | 968                   | 9.8            | 2.2        | 2130        |
|                   | High               | 19.6         | 6.9          | 12.7         | 205           |                 |            |             | 348                   | 27.0           | 2.2        | 770         |
|                   | Medium-High        | 27.6         | 7.8          | 19.8         | 237           |                 |            |             | 261                   | 12.0           | 2.2        | 570         |
|                   | Medium             | 92.5         | 16.4         | 76.1         | 289           |                 |            |             | 359                   | 6.0            | 2.2        | 790         |
| SPRING ST. VALLEY | Total              | 46.0         | 10.6         | 35.4         | 325           | 6.8             | 2.3        | 748         | 480                   | 15.0           | 2.1        | 995         |
|                   | High               | 6.2          | 1.1          | 5.1          | 90            |                 |            |             | 125                   | 25.0           | 2.1        | 260         |
|                   | Medium-High        | 30.0         | 8.2          | 21.8         | 211           |                 |            |             | 324                   | 12.6           | 2.1        | 670         |
|                   | Medium             | 9.8          | 1.3          | 8.5          | 24            |                 |            |             | 31                    | 3.6            | 2.1        | 65          |
| NEVADA ST. VALLEY | Total              | <u>87.1</u>  | <u>20.1</u>  | <u>67.0</u>  | <u>712</u>    | <u>13.3</u>     | 2.1        | <u>1495</u> | <u>899</u>            | 11.2           | 2.2        | <u>1946</u> |
|                   | High               | <u>6.4</u>   | <u>1.5</u>   | <u>4.9</u>   | <u>133</u>    |                 |            |             | <u>214</u>            | <u>22.9</u>    |            | <u>449</u>  |
|                   | Medium-High        | <u>65.4</u>  | <u>16.3</u>  | <u>49.1</u>  | <u>518</u>    |                 |            |             | <u>564</u>            | <u>11.4</u>    |            | <u>1240</u> |
|                   | Medium             | <u>15.3</u>  | <u>2.3</u>   | <u>13.0</u>  | <u>61</u>     |                 |            |             | <u>94</u>             | <u>7.2</u>     |            | <u>197</u>  |
| WOLFBACK RIDGE    | Low                | 15.1         | 2.9          | 12.2         | 18            | 1.4             | 2.2        | 40          | 27                    | 1.0            | 2.2        | 60          |
| HOUSEBOAT AREA    | Medium             | <u>4.7</u>   | 0            | <u>4.7</u>   | <u>13</u>     | <u>4.0</u>      | <u>2.1</u> | <u>27</u>   | <u>21</u>             | <u>4.5</u>     | <u>2.1</u> | <u>44</u>   |
| TOTAL             |                    | <u>536.9</u> | <u>126.1</u> | <u>410.8</u> | <u>3540</u>   | <u>11.7</u>     | 2.1        | <u>7317</u> | <u>4616</u>           | <u>9.04</u>    | 2.1        | <u>9645</u> |



TABLE II - POPULATION AND DWELLING UNITS:  
1978 AND DEVELOPMENT POTENTIAL

E: Abbreviations used in Table headings:

Res. - Residential  
Ac. - Acres  
DU - Dwelling units  
Pop. - Population

ES ON TABLE II:

Dwelling Units in commercial zones not included.

In addition to Development Potential listed on Table II, the following columns list theoretical development potential which represents the absolute total number of units possible considering only the area of each parcel and its frontage (not slope, shape of lot or location of existing structures). This total should be regarded as a theoretical maximum and probably an overstatement of what practically may be anticipated.

Nonetheless, an extremely tight housing market in recent years may indicate that unusually high pressure will persist for the development of vacant land and the intensification of developed land.

| Residential Unit  | Land Use Intensity | Theoretical DU Develop. Potential | No. of Addit. Units Possible on Vacant Land |
|-------------------|--------------------|-----------------------------------|---------------------------------------------|
| Old Town          | Total              | 845                               | 42                                          |
|                   | High               | 264                               | -                                           |
|                   | Medium-High        | 536                               | 33                                          |
|                   | Medium             | 45                                | 9                                           |
| The Hill          | Total              | 1175                              | 98                                          |
|                   | High               | 500                               | 35                                          |
|                   | Medium-High        | 117                               | -                                           |
|                   | Medium             | 558                               | 63                                          |
| New Town          | Total              | 872                               | 48                                          |
|                   | High               | 334                               | 6                                           |
|                   | Medium-High        | 214                               | 5                                           |
|                   | Medium             | 324                               | 37                                          |
| Spring St. Valley | Total              | 440                               | 37                                          |
|                   | High               | 125                               | 1                                           |
|                   | Medium-High        | 84                                | 30                                          |
| Nevada St. Valley | Total              | 458                               | 57                                          |
|                   | High               | 35                                | 0                                           |
|                   | Medium-High        | 355                               | 46                                          |
|                   | Medium             | 41                                | 2                                           |
| Holfback Ridge    | Low                | 27                                | 9                                           |
| TOTAL             | Low                | 3798                              | 290                                         |

Building Permits were issued in 1975, 1976, 1977 for 78 dwelling units.

209 Major Housing Problems

Sausalito's most pressing housing problem appears to be the high cost of housing and its effect on low-moderate income persons. The 1970 Census revealed that the City had the ninth highest median value of owner-occupied housing and the fifth highest cost for rental units in the Bay Area. In addition, the Association of Bay Area Governments estimated that nearly half of the rental households were paying an excessive percentage (over 25%) of their income for rents. The 1970 Census also recorded that nearly one-fifth of Sausalito residents over age 65 had incomes below the poverty level. The impact of high housing costs on this group is probably understated due to the low-monetary level used by the U.S. Census Bureau in determining poverty status.

210 Supplementary Data:

Further information on demographics and housing characteristics is provided in the supplement to the General Plan and incorporated herein by reference.

213 Residential Neighborhoods:

Description:

Eight residential units are shown on the Plan Diagram: Old Town, The Hill, New Town, Spring Street Valley, Nevada Street Valley, Wolfback Ridge, Houseboat Area, and Marin City. Each unit has a character which tends to give it identity. The differences are largely those of topography, street layout, and pattern and type of building development. In general, the residential units are not visibly separated or different along distinct lines. The boundaries

shown on the Plan Diagram are somewhat arbitrary and are intended in the main to identify limits of the units for statistical purposes.

Old Town presently has the highest overall land use intensity of any of the residential units, averaging 13.1 dwelling units per net residential acre. Vacant areas are exceedingly steep. Development in accordance with the Plan with low densities in the upper areas and gradual replacement of single-family houses by multi-family units in lower areas could result in an overall intensity of 14 to 15 dwelling units per net residential acre.

Three land use intensities are shown in Old Town: high, medium-high and medium. The highest intensity use area occupies the more level terrain along Second Street and the waterfront. Thirty-foot lots prevail in this area making high density multiple-family development of high quality difficult to achieve. Assembly of lots to create larger sites and allow better designs would be desirable. Any development along the waterfront should be very carefully carried out so as to preserve the amenities of this portion of the City.

The medium-high density area extends along gently sloping terrain and up into rather steeply sloping terrain and includes many old thirty-foot lots. Much of this area has already been developed to the density indicated. Continued replacement of structures however, and some increases in density are anticipated in this area.

- 217 The medium density area includes the upper portion of the hill areas. A substantial portion of this area is not developed and presents severe development problems due to its extremely steep nature. However, much of the undeveloped area in the South Ridglands has been acquired by the federal government for inclusion in the Golden Gate National Recreation Area.
- 218 The Hill is dominated by single family houses on relatively large lots in the upper area and the Alto Mira Hotel and many apartment houses in the lower area, resulting in a present average intensity of 7.6 dwelling units per net residential acre. An overall land use intensity of 9 to 10 dwelling units per net residential acre could result.
- 219 Two land use intensities are shown on The Hill: medium and high. Little change in character is expected in the Hill area. The medium intensity area should remain much as it is today with the exception of building that will take place on scattered vacant parcels. Some division of large sites and replacement of older homes may take place in addition. The lower portion of The Hill area is the apartment house area and is shown as high intensity use. This area should continue to develop as an apartment area, and very careful consideration needs to be given to the design of structures including such factors as scale, blending with vegetation and terrain, and preservation of views.

New Town with an average land use intensity of 220  
7.5 dwelling units per residential acre divides into an upper and lower part. The upper part is similar in character to The Hill and should be similarly protected by adequate lot size standards. The lower part of New Town, in the vicinity of the Caledonia Street shopping center is a suitable location for apartment houses. Development in accordance with the Plan would result in an overall land use intensity of 9 to 11 dwelling units per acre.

Three land use intensity categories are indicated 221  
for New Town: high, medium-high and medium.

The high intensity area includes lots which 222  
measure generally 50 feet by 100 feet and is an area in which encouragement should be given to land assembly to provide adequate sites for buildings. In addition, the design of buildings within this area should recognize the value of the view towards the Bay and the need not to block views of properties above. With development of the community-serving commercial area and the park shown on the Plan Diagram, it is anticipated that with adequate standards and special design considerations, this area can become a very desirable multiple-family area and one to which residents with children could be attracted.

The medium-high intensity area includes the 223  
slopes just above Bonita Street. This part of the area will probably change very slowly and not to a large extent.



224 The medium intensity area covers the upper portion of the area, and it is anticipated this portion of New Town will experience little change other than new buildings on presently vacant land.

225 Spring Street Valley has an average land use intensity of 6.8 dwelling units per acre--slightly lower than The Hill. Two land use intensity categories are indicated for Spring Street Valley: medium-high and medium. An increase of intensity to an average of 12-13 dwelling units per net residential maximum acre would result from development in accordance with this Plan. Spring Street Valley will share recreation facilities with Nevada Street Valley.

226 The lower portion of the Spring Street Valley is shown in the medium-high intensity category. This recognizes the present prevailing intensity of development and the probability of replacement of some structures with newer structures. A mixture of dwelling types ranging from apartments to single-family residences is anticipated as continuing within this area.

227 The medium intensity area includes the upper portion of the Valley and the steep hillside extending up to the Nevada Street extension. This density of development is similar to that shown for the hill lands to the south-east in New Town.

Nevada Street Valley is shown entirely in the medium-high intensity category. Development in this pattern would result in an overall intensity of about 15 dwelling units per net acre--the highest overall density for the residential units in the Planning Area.

The area has a mixture of dwelling types ranging from single-family to multi-family dwellings. It is recommended that the area include a variety of dwelling types. The location of two public schools and a proposed community park within this area create two strong positive factors encouraging high quality residential development.

The Willow Grove area, comprised of the area generally at the intersection of Nevada Street and Bridgeway, extending to approximately 30 feet northerly from the top of the bank of the existing creek, should be reserved as a nature preserve and should contain no structures or improvements other than paths for nature walks.

230 Wolfback Ridge extends along the steep slope above the freeway. Access is limited to Wolfback Ridge Road. The steep terrain and difficult access make intensive development in this area inadvisable. Low density development will continue to be appropriate. Intensity of development should not exceed one dwelling unit per 20,000 sq.ft.

A significant portion of this area is within the Golden Gate National Recreation Area.

231 Houseboats. A small area of 4.7 acres in the northeast portion of the Marinship area is designated for houseboats. It also includes the land based dwellings that have existed close to the shoreline. The area is north of the Gate 5 Road between the Clipper Yacht Harbor property and the northern City limits. The intensity of development should not exceed one dwelling unit per 10,000 square feet.

236 Commercial

For a city of its size, Sausalito has a wide variety of commercial activities ranging from resident-serving to tourist-serving enterprises. Most of the commercial uses serving a more than local market are located here because of the great charm of Sausalito and its waterfront setting. The development of the commercial areas should adhere to the following objectives and standards:

CONTINUE WITH PAGE 17 OF THE  
EXISTING GENERAL PLAN, PARAGRAPH 237

1. Provide space for establishments offering goods and services to meet the frequent needs of residents and, in addition, a limited range of goods and services needed on a less frequent basis. Sausalito residents will, however, continue to depend on larger centers outside of Sausalito for major purchases--clothing, durable goods, etc., and many services.
2. Provide for carefully controlled commercial development compatible in scale and intensity of development with the function of the City as a residential community.
3. For the Waterfront and Commercial Waterfront areas, uses should be primarily waterfront uses that are dependent on a waterfront location.
4. In the industrial area of the Marinship, provide for industrial uses and uses compatible with an industrial area.

1. Convenience goods and services outlets should be available in commercial centers so as to provide ready access from all residential areas.
2. Outlets furnishing shopping goods and services should be restricted to a few locations easily reached by both residents and visitors.
3. Expansion of central commercial uses should be limited so as to maintain a reasonable balance between floor area and parking facilities and not overburden roads and other support facilities.
4. Waterfront commercial uses should provide maximum possible public access to the waterfront, be attractive additions to the waterfront and be well-related to existing and potential surrounding developments.
5. All commercial areas should be developed as visually attractive parts of the City and in accordance with standards that will make them compatible with surrounding areas and uses.
6. Building design, site planning, planting and the amount of open space in each commercial area should be consistent with and carefully related to the design objectives for each area.



Description:

- 239 The central commercial area extends along Bridgeway from about 800 feet north of El Portal to mid-block south of Princess Street (described more fully in Part V, General Development Plan, Central Waterfront Area) and should provide a wide range of consumer goods and services catering to tourists as well as local residents.
- 240 Three resident serving commercial areas are shown on the Plan Diagram. One along Caledonia Street in New Town, and another in Marinship (described more fully in Part V, General Development Plans for Sub-areas) will serve the daily shopping needs of Sausalito residents. The third area in Marin City will serve primarily residents of that residential unit.
- 241 Two neighborhood commercial areas are shown on the Plan Diagram, one in Old Town and the other in the Spring Street Valley area. Outlets in these small commercial areas should provide convenience goods and services for the residents of the respective residential areas.
- 242 Two waterfront commercial areas (described in Part V, General Development Plans for Sub-areas) extend along the water's edge north of the Park Plaza. The Central Waterfront commercial area extends from the Sandspit to

Schoonmaker's Point (Mono Street). Uses appropriate for this area include marine enterprises such as docks, boat services, commercial fishing and also restaurants, and offices. The Marinship is north of Mono Street east of Bridgeway and extends to the northern and eastern City limits. Uses appropriate for the Marinship Waterfront area include marine uses, commercial fishing and marine use support enterprises. Uses appropriate to the industrial area in the Marinship include non-polluting, low-intensity light industrial uses and uses compatible with an industrial area. Guidelines for the development of the Marinship Area are set forth in the General Development Plan for Marinship. (Part V of the Sausalito General Plan.) These are intended to assure compatibility of uses and a desirable development of the area.

A commercial area exists along the west side of Bridgeway between Coloma Street and Ebbtide Avenue.

243

## Institutions

244 Institutional uses are those uses providing services to a defined group of people through a formalized organizational arrangement of a non-commercial nature. They include public and private uses such as schools, clubs, churches, and other civic, cultural, and public service uses. The location and design of institutional buildings are important because these buildings are major features in the make-up of the City.

### 245 Objectives:

1. Provide for those institutions such as schools, churches, clubs, and local governmental buildings that serve primarily local residents.
2. Provide for civic facilities including a library and city hall in central locations.
3. Provide for elementary schools that will be capable of serving the entire Sausalito Planning Area.
4. Provide fire stations adequate to protect the entire Planning Area.

### 246 Principles:

1. All institutional uses should be served directly by collector or arterial streets.
2. Buildings for institutional uses should be of a

scale and visual character harmonious with surrounding development.

3. Institutional uses should be compatible with surrounding uses in terms of such characteristics as traffic generation and intensity of use. Special attention should be given to building and site design to insure against adverse effects on adjoining properties.
4. Major institutions serving the entire community should be located where convenient to the entire Planning Area.
5. Where mutually desirable and advantageous, school sites within the Planning Area should be used jointly through City and School District cooperation. Where appropriate, community-serving facilities such as assembly room suitable for community meetings, a swimming pool, gymnasium, playing fields and courts should be available for local public use when not in conflict with the operational function of either School or District.

### Description:

A civic nucleus is located in New Town in the vicinity of Bridgeway and Litho Streets to include a new city hall, library and public parks. The fire and police stations would remain at Caledonia and Johnson, with a second fire station on Spencer Avenue near the Freeway.

247

Parks, Recreation and Open Spaces

249 This plan includes small neighborhood parks, community parks for the use of local residents, a region-serving park and a portion of the Golden Gate National Recreation Area. The Open Space and Conservation Element of the General Plan was adopted by the City Council in January of 1974. This Element contains specific objectives and action programs related to the following concerns:

1. Resource Production
2. Resource Preservation
3. Health and Safety Related to Open Space Access
4. Scenic Resources
5. Recreation
6. Cultural and Historic Sites

The following section of the General Plan addresses the subject of Parks, Recreation and Open Space within the Sausalito Planning Area and is not as specific as the adopted Open Space and Conservation Element of the City of Sausalito.

## 250 Objectives:

1. Provide park and recreation areas for the needs of all age and interest groups living in the Sausalito Planning Area.

2. Improve, maintain and provide access to Dunphy Park, a waterfront park in the central part of Sausalito, ensuring active public use.
3. Develop the park-plaza area as a central urban park serving the City.
4. Develop community parks providing space for active and passive recreation in New Town and Nevada Street Valley.
5. Add new units to the system of neighborhood parks to provide park facilities throughout the City within easy walking distance of all residents.
6. Participate in the planning and development of the Fort Baker portion of the Golden Gate National Recreation Area.
7. Establish a water-oriented park in the waterfront along Richardson Bay north of Sausalito, with any fill limited to that which may be necessary to provide access to the Bay and its shores.

## Principles:

251

1. Each residential unit should have one or more neighborhood parks providing play space for pre-school children and a limited area for passive recreation by older people.
2. Active recreation areas should be provided in community parks throughout the City so that school-age children can easily reach such areas for after-school, weekend and vacation use.



3. Regional parks should be served by streets of at least an arterial level, have attractions of regional significance, and be located where such activities will not interfere with the functioning of residential areas.

4. The School District and the City should develop cooperative arrangements for development and maintenance of existing and proposed publicly owned recreation facilities and school plants.

Description:

252

Neighborhood Parks: A number of small neighborhood parks are necessary to provide service to Sausalito because topography would make it difficult for many people to reach larger facilities located at greater distances. This system of neighborhood parks should be maintained and strengthened. Separate neighborhood parks are not proposed for Nevada Street Valley and Marin City since the community parks in these areas should provide facilities normally found in neighborhood parks. Additional neighborhood service facilities should be provided at the community park proposed for the Civic Center site.

The following inventory identifies the neighborhood park system in Sausalito:

**SOUTH VIEW PARK** - Entrance on North Street between Third and Fourth Streets. One tennis court, basketball court, children's play area, small lawn area and sitting area (26,400 sq.ft.)

**CLOUD VIEW PARK** - Located on Cloud View Road westerly of Booker Avenue. Park contains children's play area, bathrooms, small meeting room and sitting area (22,500 sq.ft.)

**CAZNEAU PLAYGROUND** - A small children's playground near the intersection of Cazneau and Girard, with slide, swings and sand boxes

**HARRISON PLAYGROUND** - Opposite Star of the Sea Church on Harrison. Children's playground with equipment (5,950 sq.ft.)

**LANGENDORF PLAYGROUND** - Located at the intersection of Easterby and Woodward Avenue. Contains small children's area, lawn, play equipment area with concrete slide, picnic area with barbecues and benches (15,030 sq.ft.)

Community Parks: Community parks should provide space for game fields, courts, picnic areas and passive recreation including areas for sitting and relaxing. Six community park and recreation areas are proposed within the Sausalito Planning Area as follows: 253

**MARTIN LUTHER KING SCHOOL SITE** - A portion of the Martin Luther King School site should be utilized as a community park and acquired if the site is declared surplus. Five tennis courts exist on the school grounds at the intersection of Coloma and Olima Streets. The area shown on the Plan Diagram includes the existing tennis courts, baseball diamond and some intervening space. This park should serve the Nevada Street Valley and part of the Spring Street Valley. Its specialized facilities will also provide city-wide service.

**THE BAYSIDE SCHOOL** - Should provide an additional community-serving recreation area. The outdoor recreation facilities of the school should be available for community use and other special features should be provided including a hall suitable for community use, swimming pool and gymnasium.

**THE CIVIC CENTER** - includes a recreation facility that should not be lost but should be developed to better serve the surrounding high intensity residential areas as well as all of the New Town and portions of The Hill and Spring Street Valley.

EARL DUNPHY PARK - is located in the Central Waterfront Area consisting of a play area, landscaping, and lawn for primarily passive recreation use and water area. This park of approximately 10 Acres is located between Napa Street and Litho Street extending Easterly to the East City Limits line.

MARINSHIP PARK consists of approximately 2.81 acres of land acquired from the Federal Government located adjacent to the Corps of Engineers facilities in the Marinship. This land is proposed to be developed as an active recreation park.

MARIN CITY COMMUNITY PARK - The community park in Marin City would serve primarily Marin City and should be of adequate size to provide a full range of park and recreation facilities. If the land adjoining the park site (indicated on the Plan Diagram as "Future Use Under Study") is developed as a school, a program for common use of recreation facilities should be developed.

4 THE GOLDEN GATE NATIONAL RECREATION AREA is a major regional park which borders Sausalito on the south and west. The Fort Baker property is a part of the Golden Gate National Recreation Area. The Golden Gate National Recreation Area is readily accessible from the Redwood Highway and the Golden Gate Bridge. The terrain is varied and exciting and provides opportunities to accommodate diverse recreational activities. The site is dramatically situated with a magnificent visual relationship to San Francisco and the Golden Gate. Careful consideration will need to be given to the development of this property to retain its natural beauty and to utilize it in ways that take advantage of its magnificent setting.

The regional park planned for the area north of the City limits on Richardson Bay should be a water-oriented park. It would be important in serving Southern Marin County and other parts of the Bay Area. A park in this location is shown on the Richardson Bay Plan adopted by Marin County.

The following parks and recreation areas exist in Sausalito in addition to the neighborhood, community, and regional areas outlined above:

VALLEY STREET BEACH is a sand beach ~~with swimming float~~ located at the east end of Valley Street. Access is provided by stairs at this street end.

TIFFANY PARK is located on the west side of Bridgeway at the east end of North Street. This is primarily a view park with a sitting and picnic area.

TIFFANY BEACH is a small sand beach located outboard of Bridgeway across from Tiffany Park. This beach is linked by a walk along the sea wall to Yee Tock Chee Park.

CARL SPRING PARK is proposed as a passive recreation area with benches and landscaping at the intersection of Bridgeway and Richardson Street.

A MUNICIPAL FISHING PIER exists outboard of Bridgeway in the 500 block. This is a small pier for fishing with benches.

YEE TOCK CHEE PARK is located outboard of Bridgeway at Princess Street. This is a passive park with landscaping, lights, benches, and access to the water.

VINA DEL MAR PLAZA is an historical garden park within the Central Commercial District. It is designed as a passive garden area with formal fountain for visual enjoyment.

GABRIELSON PARK is a waterfront park located outboard of Parking Lot #1 adjacent to Anchor Street. This park provides benches, sculpture, picnic tables, and lawn area for enjoyment of Richardson Bay views.

TURNER STREET BOAT RAMP provides an area for launching boats and contains one float



256

Several open space areas exist within the City in addition to the developed park areas. It is not proposed at this time to develop these areas into active use parks. These areas include:

NORTH PARK located adjacent to the intersection of Woodward Avenue and Marie Street.

CYPRESS RIDGE located between Spring Street and the Rodeo Avenue exit off Highway 101.

THE WILLOW GROVE located at the northwest intersection of Bridgeway and Nevada Street.

257

Boat harbors. The Sausalito waterfront provides a good location for small craft harbors and related facilities. It is reasonably protected from winds and affords ready access to channels and open water with interesting and scenic boating areas. Harbors should continue in existing locations; additional harbors in locations between the shoreline and proposed pierhead line should be encouraged as long as they have adequate access and are compatible with other nearby uses. Proposals for additional harbors are included in the General Development Plans for Marinship and the Central Waterfront in Part V.

258

Park Plaza in the heart of Sausalito is the focal point of the City. Future expansion of this park for pedestrian use to include areas now in automobile parking is described further in Part V, General Development Plan, Central Waterfront Area.

#### CIRCULATION ELEMENT

259

The circulation system is designed to provide for all types of movement of people and goods to serve

the residents, and business enterprises within the Planning Area and to provide for essential through movements. All routes and facilities should be interrelated to form a comprehensive system with connection to regional facilities.

#### General Objectives:

260

1. Develop a circulation system designed to provide freedom of movement for individuals, and expedite movement and delivery of goods under conditions of normal daily traffic demands.
2. Minimize community disruption caused by peak volume visitor traffic.
3. Promote the development of forms of transportation specifically suited to Sausalito's special situation and physical conditions.
4. Minimize the impact of through-traffic on Sausalito.
5. Locate, design and develop circulation facilities so as to conserve the natural beauty and existing character of the area and minimize adverse effects on adjoining uses of land.

#### General Principles:

261

1. The circulation system should be coordinated with the systems and plans of adjoining cities and the County in order to assure an economical and functional system.



2. Circulation facilities in Sausalito should form part of an integrated system that provides appropriate facilities for all types of movement of people and goods.
3. Conflicts between different types of carriers and between vehicles and pedestrians should be minimized through appropriate design solutions and application of suitable controls.

#### General Description:

- 262 The complete circulation system for the Sausalito Planning Area includes those facilities specifically shown on the Plan Diagram and others not shown but which must be planned for and taken into account. The system includes trafficways, automobile parking areas, transit facilities, air transportation facilities, railroad lines, bicycle paths, and pedestrian walks."

All of these facilities must be joined together in a comprehensive system so that each type of trip is matched by an appropriate facility capable of accommodating that trip.

#### Trafficways

- 263 Trafficways include all streets and all related parking facilities serving the Planning Area.

#### 264 Objectives:

1. Discourage through traffic on routes other than the U.S. 101 Freeway.

2. Provide for major access into Sausalito from the north only and in a manner that will minimize possible disruption to the functioning of Sausalito as a residential community.
3. Provide for adequate local streets in Sausalito to meet the needs of the residents and to serve commercial enterprises to the extent consistent with other stated objectives of the Plan.
4. Reduce the visual impact of the parked automobile in the Central Waterfront Area.
5. Discourage the use of automobiles in the central part of the City.

#### Principles:

265

1. The trafficway systems should include a range of facilities necessary to accommodate the variety of traffic movements needed in the Planning Area.
2. Major trafficways should be located, designed, and landscaped so as to minimize their impact on adjoining properties.
3. To increase and preserve the beauty of the City and lessen conflicts with adjoining property, streets should be adjusted to the terrain and landscaped where appropriate.

Existing vegetation of good visual quality should be retained to the fullest extent practical.

## 266 Standards:

1. To provide for safe and convenient travel in and around the Planning Area, the following classes of trafficways are included in the circulation system:

Freeway - a divided arterial highway for through-traffic with full control of access. Trafficways carrying interregional and inter-county traffic should be of freeway level.

Arterial Street - a trafficway for through-traffic with intersections at grade but with direct access to abutting property limited to the greatest extent feasible. Routes accommodating heavy volumes of traffic and connecting local roads with intercommunity, intercounty or interregional routes should be of arterial level.

Collector Street - a surface street with points of access to abutting property controlled; designed to carry traffic from land access roads to local destinations, arterial streets or freeways.

Land Access Road - a surface street functioning primarily as a means of access to abutting land.

2. Standards of curvature, grade, alignment, and site distance should be conducive to safe, convenient travel on the various classes of trafficways.

## Description:

The present freeway on U.S. Route 101 is the only thoroughfare passing through the Planning Area. It is the only route intended for through-traffic. Access to and from Sausalito is gained from five points along U.S. 101 which would provide the normal access for residents. Traffic has been channeled away from the southern entrance (Alexander Avenue) and primary ingress and egress is provided at the north via Marin City - Sausalito Interchange. Alexander Avenue, Spencer Avenue, Monte Mar Drive, and Rodeo Avenue should all be primarily for the convenience of Sausalito residents.

The lateral from U.S. 101 in the vicinity of Fort Baker provides an access to the Golden Gate National Recreation Area and should continue to provide access to Sausalito for local residents.

An arterial is proposed to parallel U.S. 101 north of Sausalito to provide an inter-community route linking Sausalito with the Mill Valley area and to serve the proposed regional park and waterfront commercial areas along the shoreline. It should be designed to complement the shoreline park.

269 West of U.S. 101 two points of access to the freeway are shown. One is a collector serving a small portion of Wolfback Ridge and the other is access into Marin City.

270 The access to Marin City is not adequate at the present time as there is a difficult intersection at the off-ramp coming into Marin City. Southbound traffic headed for Sausalito is also subjected to difficult movements at this interchange. Further attention needs to be given to providing proper access to Marin City and Sausalito as well as to providing a good link from Marin City to Sausalito. Consideration should be given to the development of a direct pedestrian underpass or overpass from the vicinity of the proposed shopping center in Marin City to the proposed park area on Richardson Bay.

There should be a comprehensive examination of traffic needs in the entire area long the northern shoreline from Gate 5 Road in Marinship to the connection to Mill Valley on State Highway 1. Solutions should include necessary modifications of the Marin City-Sausalito interchange, connections from Bridgeway to the proposed shoreline arterial and connections to Mill Valley. Sausalito, Marin County, Mill Valley and the State of California have interests in this area and would need to be involved in developing definitive solutions. 271

Limited off-street parking is proposed in the Central Waterfront Area, strategically located and restricted in amount, and intended to serve those uses permitted in this area which require parking nearby. 272

Elsewhere in the Planning Area, parking should be provided in smaller common parking lots or on-site with the individual uses requiring parking.



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272

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## Pedestrian Walks

### 273 Objectives:

1. To provide a comprehensive system of pedestrian walks to enable persons to enjoy walking throughout Sausalito.

### 274 Principles:

1. Pedestrian walks should be provided along the entire waterfront to allow enjoyment of this natural resource.
2. Pedestrian walks should be provided down to the waterfront area from the hills so as to minimize the walking distance along streets which follow the contours.
3. In order to encourage use, pedestrian walks should be attractive, appropriately surfaced, landscaped and protected from winds where necessary.
4. All pedestrian walks should be rehabilitated and improved.

### Description:

275 The scale of Sausalito is such as to encourage and permit many people to walk in the City. It is, therefore, important to provide a system of walks that will allow residents and visitors alike to enjoy the City. The basic network of walks should include a walk along the entire waterfront and connecting walks to the residential areas in the hills down to the waterfront. In the hills behind

Sausalito a limited trail network would be developed to link the Wolfback Ridge area with the rest of the Planning Area.

## Transit

The Plan Diagram does not show transit facilities. Sausalito needs and will continue to need adequate transit to connect the City with San Francisco and other parts of the Bay Area. Any major transit plans would have a major bearing on the future of Sausalito and should be reviewed in relation to general community goals. The feasibility of developing some form of local transit service should be studied. Possible functions of local transit include feeder service to a regional system; service to the school; and service for the convenience of residents for local trips shopping, to the library, parks, city hall or other places. The feasibility of jitney service should be examined. This could involve an additional service by local taxi companies or use of small buses.

276

#### Air

- 277 Sausalito will continue to be considerably removed from a major airport and, therefore, the continuation of helicopter service convenient to Sausalito is important. No location for heliport facilities is shown on the Plan Diagram; however, it is recommended that facilities be located convenient to Sausalito.

#### Railroad

- 278 The route should not be abandoned without thorough consideration of its potential for transit. (It once provided a connection to a Sausalito-San Francisco Ferry.)





### PART III PLAN DIAGRAM

This diagram portrays information supplementary to and interrelated with Parts I and II of this Plan. Except for the Marin City area, the indications on this diagram convey general City policy regarding interrelationship and location of the categories of land uses, institutions and circulation facilities shown. In the Marin City area, the proposals of Marin County are shown for context. Where sub-area plans have been adopted, the text and diagrams in such plans are supplementary and where different supercede information conveyed by this plan diagram.

(Diagram in pocket, back cover)

### PART IV SUPPLEMENTARY ELEMENTS

Five separate elements have been adopted as a part of the Sausalito General Plan. Each element contains a discussion of the required subject material, objectives, principles, and necessary exhibits. Three of the Elements also contain supplementary data. Although an integral part of the adopted General Plan, these elements are referenced as follows:

| <u>ELEMENT</u>                                     | <u>ADOPTED</u> |
|----------------------------------------------------|----------------|
| Open Space Element                                 | 1/2/74         |
| Housing Element & Supplementary Data               | 7/18/78        |
| Noise Element & Supplementary Data                 | 7/18/79        |
| Seismic Safety/Safety Element & Supplementary Data | 7/18/78        |
| Scenic Highway Element                             | 7/18/78        |





## PART V - GENERAL PLANS FOR SUB-AREAS

### DIVISION 1: GENERAL DEVELOPMENT PLAN, MARINSHIP

#### INTRODUCTION

2100 The material in this division together with the Plan Diagram (following page V.6) constitutes the General Development Plan for the Marinship area of Sausalito. It is an elaboration of the portion of the adopted City General Plan affecting this area.

#### OBJECTIVES

2101 The objectives of this plan are:

1. To protect the waterfront area and promote diversified water-dependent uses.
2. To promote the development of other lands in the Marinship with industrial uses and uses compatible with an industrial area.

#### LAND USES

2102 Two distinct land use areas are indicated on the Plan Diagram. One is the Industrial area covering the in-shore portion of Marinship. A limited amount of retail service establishments for residents may be included within the industrial area.

The other is the Waterfront area covering the outboard and water area of Marinship. A small portion of the Waterfront area north of the Gate 5 Road between the Clipper Yacht Harbor and the Northern City Limits is designated for houseboats and the existing land based dwelling units.

#### Waterfront Area

Uses in this area should be limited to the following and similar general types of uses consistent with the goals, objectives and functional organization of the General Plan: 2103

The following marine-oriented uses: Boat harbors, piers, wharves, and launching ramps; boat storage; boat sales, rental, building, repair and service; commercial and sport fishing facilities; wholesale and retail fish sales; marine equipment, sales, manufacture, service and repair; tax exempt yacht clubs; marine research laboratories; houseboats and land-based dwelling units (minimum 10,000 sq.ft. parcel area per dwelling unit) within the 4.7 acre area north of Gate 5 Road between Clipper Yacht Harbor and the Northern City limits. A terminal for a ferry or similar marine transportation should not be located in the waterfront area.

### Industrial Area.

Uses in this area should be limited to the following and similar general types of uses consistent with the goals, objectives and functional organization of the General Plan:

2104 Non-polluting, low-intensity industrial uses, and the following uses compatible to an industrial area: warehousing; wholesale trade establishments; light manufacturing; offices; office and industrial service and supply; art and craft workshops (no retail sales); research and development laboratories; small-scale appliance and equipment repair and service; boat storage, yacht clubs; wholesale and retail fish sales, theaters, sales of frequently purchased household necessities like groceries, hardware and drugs, and, in addition, services for residents limited to an approximate 4 acre area south of Harbor Drive in the vicinity of and including the existing supermarket; employee eating establishments as an accessory use to an office or industrial establishment (independent eating establishments should be permitted only after review to determine the need for such a facility to serve the needs of employees in the Marinship area and determination that the location and signing does not encourage use by persons outside of the Marinship area).

2105 The lands labeled "City of Sausalito" and "U.S. Army Engineers" on the Plan Diagram are now in public ownership and should be reserved for possible future public use for recreation or other civic purpose. The Zoning Ordinance should establish an appropriate public use district for these lands to insure public control as additional areas may be declared surplus by the Corps of Engineers.

### CIRCULATION

The plan presented herein has been conceived to solve present problems and provide a consistent framework for the future within which individual owners can proceed with development. It would provide direct access to all major property holdings with access to all parcels via private roadways from this system. Interior circulation system will be provided on major parcels during project review. With new growth in the next few years, and the type of land uses that will develop, this road system is considered to be the minimum necessary to serve these properties adequately. 2120

#### Street Standards

2121

All streets should be improved to adequate standards to carry the character of traffic anticipated. In all cases curbs and gutters should be provided and sidewalks on at least one side of all streets.

#### Proposals for Circulation System

2122

The various segments of the circulation system are identified by numbers on the Plan Diagram.

#### Primary System

The primary system is identified as No. 1 on the Plan Diagram. This street system is proposed as the major access way in the Marinship. It should have a 40 foot to 50 foot minimum right-of-way subject to specific route and design approval by the City Council of the City of Sausalito.

## Secondary System

The secondary system is identified as numbers 2, 3 and 4 on the Plan Diagram. These streets are proposed as minor access ways in conjunction with the primary system. Street 2, Varda Landing Road, provides access to the Houseboat District and a number of small parcels in the Industrial District with a 40 foot right-of-way width. Street 3 is proposed with a 40 foot right-of-way width. Street 4 is proposed as a one-way southbound street from Harbor Drive with a 40 foot right-of-way.

## Pedestrian Way

A 20 foot wide pedestrian way, lying 10 feet on each side of the property lines, is provided from Coloma extension to Harbor Drive parallel to Gate Five Road.

## Southern Marinship Access

Improvements to this existing intersection to provide ingress and egress at Easterby Street/Spring Street or a new intersection with Bridgeway south of Easterby Street will depend on future development intensities in the Southern area of the Marinship.

## Northern Marinship Access

This intersection should be aligned with Ebbside Avenue to the west of Bridgeway.

2123

## PARKING

Sufficient off-street parking should be provided to serve all uses established within the Marinship.

## PARKS

Marinship Park consists of approximately 2.81 Acres of land acquired from the Federal Government located adjacent to the Corps of Engineers facilities in the Marinship. This land is proposed to be developed as an active recreation park.

2126

## UTILITIES

### Water

The water system needs improvement to give additional capacity and interconnections so that fire hydrants can be installed at spacing not to exceed 500'. The size of mains should be sufficient to provide volume to meet sustained fire flow requirements.

2130

### Sewers

Additional sewer lines will be needed as properties are developed. The establishment of a system of public streets will facilitate the design and installation of sewer lines needed to complete the system.

2131

### Drainage

Two drainage systems are needed, one to take care of local runoff and the other to handle storm waters originating west of Bridgeway.

2132

## Gas and Electricity, Telephone and Cable Television

As in the case of sewers, the establishment of public streets will facilitate the design and installation of lines needed to serve properties in Marinship. All utilities shall be underground when feasible.

2133



## THE SHORELINE AND WATER AREAS

### Pierhead Lines

- 2140 No changes are recommended in the pierhead lines.

### Bulkhead Lines

- 2141 Certain changes in the location of the bulkhead lines are recommended. These changes are proposed in order to preserve the maximum amount of usable water area while permitting the filling of certain lands presently within the tidal range. It is proposed that the bulkhead line be established at approximately the line shown on the Plan Diagram. With proper construction, the development of a shoreline at this point will assure access to water deep enough for small boats.
- 2142 No change is recommended at this time in the bulkhead lines at the northern end of Marinship (in the region of the Onslow-Ford and Anshen properties). Action on changes in this part of the area should be deferred until it can be coordinated with County plans for this area.
- 2143 With the exception of the northern end of Marinship, the bulkhead line proposed should become the permanent shoreline.

### Water Areas

- 2144 Private lands between the pierhead and bulkhead lines should be utilized in accordance with the

recommendations in this plan and the regulations of the United States Army Engineers governing water areas. Private lands beyond the pierhead line should be acquired by the City by dedication or other means and should not be counted as lot area for the purpose of determining ~~population density~~, building coverage or building intensity.

## PART V - GENERAL PLANS FOR SUB-AREAS

### DIVISION 2: GENERAL DEVELOPMENT PLAN, CENTRAL WATERFRONT AREA

#### INTRODUCTION

- 2200 This plan, Part V, Division 2 of the General Plan of the City of Sausalito, is a statement of City policy for the development of the Central Waterfront Area . This General Development Plan consists of three articles. Articles I and 2 are text and Article 3 is the Plan Diagram. Together they constitute the General Development Plan. It is a guide to future development, public and private, and provides a basis for formulating specific programs and measures for achieving the goals set forth in the Plan. .
- 2201 The policies and proposals set forth in this section of the City General Plan should be interpreted and applied in the context of the more general assumptions and community goals contained in Part I of the General Plan. Where any specific proposal in the plan for the Central Waterfront Area differs from guidelines established by Parts I, II, and III of this General Plan, the proposal for the waterfront is intended to take precedence.





## ARTICLE I - GOALS AND MAJOR CONCEPTS

### GOALS

2210 The goals of this plan are to:

1. Establish and preserve a shoreline with great visual interest and unique aesthetic quality.
2. Provide public access, including visual access, to the water to the greatest extent feasible.
3. Maintain the maximum amount of water area feasible.
4. Permit limited, carefully controlled private development along the shoreline.
5. Provide for general improvement in quality and amenity of the waterfront area.
6. Provide limited off-street parking strategically located and restricted in amount only to serve those permitted uses for which parking in close proximity is essential.
7. Control vehicular traffic entry to Sausalito to minimize disruption of Sausalito as a residential community and within the Central Waterfront Area improve the circulation system to separate pedestrian and vehicular traffic.
8. Foster major waterfront recreation facilities, including such uses as small boating facilities, a basin for sailing boats, places to sit and enjoy the waterfront, walks and other related features outboard of Bridgeway.
9. Develop the Park-Plaza as a focal point in the central area.
10. Encourage the New Town business area to develop with emphasis on resident serving commercial activities.
11. Establish, in the vicinity of Litho Street and Bridgeway, a civic nucleus, including a new City Hall, Library and parks.
12. Establish standards and criteria to guide the many important detailed design decisions for the Central Waterfront Area.

## MAJOR CONCEPTS FOR DEVELOPMENT

- 2211 In this plan the Central Waterfront Area, extending from the peninsula north of Mono Street to a point about 700 feet south of Princess Street, is treated as a distinct sub-unit of the City of Sausalito. The plan includes features providing over-all visual and functional unity while encouraging diversity in development of individual properties. Within the area there are three sub-areas - the Central Commercial Area; the Resident Serving Commercial Area in New Town; and, outboard of Bridgeway, the area which itself divides into two definite parts - the basin north of the Sandspit and the sweep of shore extending from the tip of the Sandspit towards Tiffany Beach. Sites for a public park and public buildings are in the blocks between Napa and Litho Streets in New Town. Residential uses extend up the hillsides.
- 2212 Bridgeway and the waters of the Bay are the primary unifying elements at present, and these features should remain as dominant elements. A system of walks is proposed along the waterfront as a further unifying feature.
- 2213 Outboard of Bridgeway areas are proposed to be used primarily for boat harbor, waterfront commercial, and public park purposes - or to remain as open water.

Public park, and limited commercial uses would occupy the Sandspit. The Park-Plaza at El Portal is the focal point of the area. Boat harbor use is expanded north of the Sandspit, and a City waterfront park, largely on lands already filled, is proposed outboard of Bridgeway between Litho and Napa Streets.

To preserve the maximum amount of usable water area while permitting the limited filling of certain lands within the tidal range, it is proposed that an interior bulkhead line be established at approximately the line shown on the Plan Diagram, generally following the present limits of filled land. This should become the permanent shoreline. The pier-head line is proposed to remain at its present location along Railroad Avenue to afford a limited amount of construction over water on piles or to allow the development and/or expansion of marina use.

The New Town business area is envisioned as developing primarily with resident serving commercial activities. A civic center is established in the Litho-Bridgeway area, including a new City Hall, Library and park.

2214

## IMPLEMENTING OBJECTIVES

2220 The goals in the previous section are very general and, if they are to be effective as policy guides, more specific objectives must stem from them. The more specific objectives should then lead to action programs to be undertaken by the City and by residents, land owners, business establishments, and organizations representing various interest groups in the City.

2221 Under subsequent headings implementing objectives are linked to each goal.

I. Establish and preserve a shoreline with great visual interest and unique aesthetic quality.

a. The desired visual qualities set forth in this plan are guidelines for future development and should be secured through careful professional review of each proposed project taking into consideration adjacent developments, existing and proposed.

b. The views from ground level to the skyline of the Sausalito hills provide orientation and should be protected, conserved and enhanced in future development by keeping a maximum of open space in streets, plazas and park areas.

c. In creating, preserving and enhancing

vistas, such as those toward Mt. Tamalpais and San Francisco, new overhanging signs, power poles and lines, television antennas and similar masts infringing on the vistas should not be permitted and any such existing offenders should be removed.

d. Because views from locations at higher elevations allow the appreciation of the overall development pattern, the central waterfront should have a strong visual structure; this implies disposition of buildings, land and water in a meaningful composition.

e. To enhance views of the waterfront from above:

- Each new development should be particularly considered from the standpoint of shape and preservation of the maximum amount of open water close-in to the existing shore.

- Building heights and sizes should be controlled to keep buildings in scale with surroundings.

- Roof design, construction materials and colors should be carefully chosen; heaters, air conditioning units, stacks,



vents and ducts should be concealed or eliminated so that new developments will be pleasant to look down upon.

- f. The rich visual experience along the Sausalito waterfront area should be enhanced by a variety of mutually compatible waterfront uses.
- g. Variety in the waterfront should also be provided by:
  - Development over water with resultant shadow patterns, clustering buildings around minor open spaces, and larger open park and landscaped parking areas.
  - Avoiding developments with a sameness in the spaces created for different purposes. This includes open spaces which in their total might add up to a sizeable area, but because of lack of concentration create in reality a sameness devoid of importance.
- h. An entry sequence into the main part of Sausalito from the north should be established. The waterfront area, New Town and downtown areas should be clearly identifiable components.
- i. A waterfront park at the northern end of the study area between Litho and Napa

streets, outboard of Bridgeway, utilizing the existing land form reinforced with earth-mounding and contouring would offer relief from, and contrast to, the remainder of the waterfront.

- 2. Provide public access, including visual access, to the water to the greatest extent feasible.
  - a. The public should be able to walk or ride bicycles along most of the waterfront with priority being given to those on foot. Automobiles should be kept back from the water's edge. Public access should be permitted to the outer reaches of all boat harbors.
  - b. A continuous pedestrian system is desirable with loop routings to avoid the necessity of doubling back. The walk system should be designed to connect major centers of activity, and to provide opportunities for scenic views.
  - c. Every development should be carefully considered in the context of being viewed from all places from which it would be

visible to evaluate visual impact and to assure preservation of substantial open views to and from the water.

3. Maintain the maximum amount of water area feasible.

- a. The amount of water area to be retained will depend upon the community's ability to acquire or otherwise preserve such open area.
- b. Marinas and boat harbors should be encouraged and development requiring filling or structures on pilings minimized.

4. Permit limited, carefully controlled private development along the shoreline.

- a. The amount of development permitted on the shoreline should be consistent with the provision of a high quality, uncrowded, water-oriented development.
- b. The amount of development should be consistent with the development intensities permitted elsewhere in Sausalito and should not overburden roads, parking areas and other support facilities.

5. Provide for general improvement in quality and amenity of the waterfront area.

- a. On Bridgeway south of the Park-Plaza, the solid linear massing of buildings against the hill, should be retained and extended because it permits direct visual contact with the bay and affords "across-the-bay" views.
- b. Since exposure to the water area is Sausalito's major asset, the shape of the shoreline and nature of the edge should be designed to relate to and improve what exists in both the natural and manmade land forms.
- c. Appreciation of the waterfront at ground level will be enhanced if the meeting of land and water at the shoreline is clearly defined. Appropriate structures such as flagpoles and lower markers can emphasize the edge.

6. Provide limited off-street parking strategically located and restricted in amount only to serve those permitted uses for which parking in close proximity is essential.

7. Control vehicular traffic entry to Sausalito to minimize disruption of Sausalito as a residential community and within the Central Waterfront Area improve the circulation system to separate pedestrian and vehicular traffic.

- a. Provide for major access into the Central Waterfront Area from the north only.
- b. Establish special traffic controls to operate when needed to minimize traffic flow into the Central Waterfront Area.

8. Foster major waterfront recreation facilities, including such uses as small boating facilities, basin for sailing boats, places to sit and enjoy the waterfront, walks, and other related features outboard of Bridgeway.

9. Develop the Park-Plaza as a focal point in the central area.

- a. The potential enjoyment of an uncluttered Park-Plaza area designed as a pedestrian plaza is so great that a long-range program should be developed for eventually relocating auto areas near to, but outside of, the central plaza area.

- b. Because the Yacht Club needs berthing space, dry boat storage, launching space, and parking space that cannot be reasonably supplied in its present location, a more suitable site should be found.

- c. The existing elements of Vina del Mar Park which are arranged in an enclosing design should be redesigned to increase freedom of pedestrian circulation through the area. Until such time as Parking Lot No. 1 located to the east of the park is removed, or substantially modified to create a more pleasant visual experience, the park should remain in its present form. Regrading and landscaping of Parking Lot No. 1 and its ultimate conversion to an extension to Vina del Mar park should be the subject of a Park Plaza Plan.

d.



10. Encourage the New Town business area to develop with emphasis on resident serving commercial activities.

11. Establish a civic nucleus in the Litho-Bridgeway area for a library, City Hall and park.

12. Establish standards and criteria to guide the many important detailed design decisions for the central waterfront area.

- a. The existing relatively small scale textural pattern of the waterfront resulting from boats in their boat harbor slips, and small buildings in groups should be retained.
- b. Criteria for new construction in the waterfront area should cover location, relation of one structure to another, height, size, exterior materials, color, and design character.
- c. All buildings outboard of Bridgeway should have a "waterfront character". Others located inboard should be compatible with "Sausalito character".
- d. The use of highly reflective materials should be restricted, and the use of wood and stucco in character with the older buildings should be stressed.

- e. Signs should vary from storefront to storefront so as to be related to the size, color and material of the storefront, the nature of the business, and the location on the street. However, some order and uniformity should be expected because of the common function of the signs and the similar viewpoints from which they are observed.
- f. The number of projecting signs should be minimized and businesses encouraged to place signs flat on storefronts. This in itself would do a great deal in uncluttering Bridgeway. The importance of relationships between signs on adjacent buildings should be stressed. Where there is more than one shop in a small building, a common area should be used for all signs as well as signs for identification of the second floor uses. Illuminated signs should be lighted by reflected light only and restricted in brightness.
- g. Lighting for public spaces that are developed in the central waterfront area should be carefully designed. As can be seen in the Vina del Mar, the planted areas absorb a great amount of light at night. The level of illumination should not be overly high, however. As an example, around Christmas, low level,

colored lights are placed in the large Cedar in the park with great success. This effect can be achieved in a permanent, more subtle way that would add visual delight as well as providing an adequate level of utilitarian lighting.

- h. All pedestrian spaces such as parks, esplanades and walkways should have lighting fixtures of appropriate design to differentiate and identify such spaces from the other land uses. The lighting of public spaces should provide variety within an overall unified scheme.

**(1) Design considerations for the development east of Bridgeway between Napa and Johnson Streets shall balance the following objectives:**

- a. Preservation of views down streets perpendicular to Bridgeway;
- b. Preservation of open space vistas into Dunphy Park from Bridgeway;
- c. Access to Dunphy Park;
- d. Provision of landscaping and/or space between structures and Bridgeway;
- e. Provision of adequate light, air and privacy for ark residents east of Bridgeway between Pine and Johnson Streets."

## ARTICLE 2 - ELEMENTS OF THE PLAN

- 2230 The elements of the plan include land use, circulation and utilities. Each element elaborates and extends information shown on the Plan Diagram, Article 3, of this plan, and sets forth principles and standards for development and use. The Plan Diagram is intended to show general relationships and general extent of uses and facilities and is not to be considered specifically binding as to exact location or extent of particular uses, facilities or local streets.

### LAND USE ELEMENT

- 2231 This element includes guidelines for land occupancy and describes the location and distribution of land uses. Land use interrelationships and land use circulation relationships are also defined. The acreages of the various proposed land uses are given in Table 1 (Land Areas by Use Category). This plan deals with the following categories of areas and uses: open water areas, planting and open space areas, public park, civic buildings, auto parking, waterfront commercial, boat harbor, central commercial, resident serving commercial, and medium high and high density residential areas. These areas and the areas designated for waterfront uses in Marinship are indicated on the Plan Diagram and described in paragraphs below.

### Open Water Areas

The open water areas shown on the Plan Diagram are intended for navigation, access to marinas and docks, mooring of small boats and visual enjoyment. They serve as one of the major unifying elements for Sausalito's Central Waterfront Area.

### Planting and Open Space Areas

Areas in this category indicated on the Plan Diagram are intended to serve three purposes: to provide space for planting to screen auto parking from view; to provide space for tree planting to develop a strong element of visual continuity (a "tree frame"); for other landscape treatment to protect views by keeping some spaces open and unobstructed. Areas along Bridgeway in general would serve the first two purposes; the areas on the tip of the Sandspit, the latter purpose. A landscape design plan and planting plan should be prepared as a guide to future development of these areas.

### Public Parks

Areas in this category indicated on the Plan Diagram include the presently developed Yee Tock Chee Park, the Park-Plaza (a proposed expansion of Vina del Mar park) and a park and public use complex in the Litho Street-Bridgeway area. The park areas are discussed below.

2232

2233

2234



2235 The Park-Plaza is shown extending from Bridgeway and El Portal out along the eastern shore of the Sandspit. This park would be of a nature in keeping with the "downtown" location. The park would include walks and be a setting for outdoor display areas, a small amphitheater, and other facilities for casual use. It is a highly urban open space and should be so designed.

2236 The Civic Center site.  
This should be developed with courts and game fields for active use to serve the residents of the central portion of the City.

2237 In addition, Dunphy Park, located outboard of Bridgeway in the area indicated on the Plan Diagram between Litho and Napa Streets provides views of the Bay, a smaller pool of water extending towards Bridgeway, places to sit and enjoy the water, walks, and other related features. This particular location is well suited to this use since it is in the lee of the hill which rises to the west. The major portion of the lands between Litho and Napa Streets has been acquired by the City.

### Civic Buildings

2239

City Hall: The City Hall is located on the Civic Center site bounded by Caledonia, Litho, Bonita and Bee Streets.

Library: The library is located on the Civic Center site.

Fire Station: The Fire Station is shown at the present site. Exit movements from this location are somewhat difficult and additional traffic control measures should be instituted.

Police Station: The Police Station is shown as remaining in its present location.

### Auto Parking

As masses of parking vehicles are unsightly and should therefore be avoided, vehicle parking within the Central Waterfront Area should be regulated in such a manner to require off-street parking only to serve new uses. Emphasis should be applied to the design of parking facilities so as to enhance the appearance of such facilities through landscaping and other means. Parking on structures built on piles or piers should be avoided.

2240

2241. Parking for the resident serving commercial area along Caledonia Street should be provided in public facilities or on-site where parcels are large enough to develop efficient use of space. An overall design should be developed to guide private and City actions.

2242 Spaces in public lots should be reserved for Sausalito residents for use free or by payment of a nominal fee. The fee structure for non-residents should be set high enough to yield returns to amortize the public investment and cover operating costs. Arrangements for parking fee validation should be made where feasible without unduly increasing operating costs of the parking lots.

2243 The parking lots, in addition to their primary role, should be treated as important open spaces and this should be an overriding consideration in their design, development and operation. Appropriate tree and screen planting should be installed as a part of the original construction of each lot. The design and development of the parking areas will be a critical factor in the visual quality of the entire Central Waterfront Area.

Waterfront Commercial Area.

2244

Uses in this area should be limited to the following and similar general types of uses consistent with the goals, objectives and functional organization of the General Plan:

Boat harbors, piers, wharves, and launching ramps; boat storage, sales, rental, building, repair and service; marine equipment, sales manufacturing, service and repair; yacht clubs; wholesale and retail fish sales; marine research laboratories; commercial and sports fishing facilities; offices; restaurants and service of alcoholic beverages as an accessory use to a restaurant. A terminal for a ferry or similar marine transportation should not be located in the Central Waterfront Area.

2248

Central Commercial

An area for this class of use is proposed in the Bridgeway-midtown section. The contemplated range of uses--convenience goods and services to shopping goods-- would be almost identical to those uses enumerated in the Zoning Ordinance for the Central Commercial Zoning District. The present building bulk regulations, however, should be revised to further limit allowable floor area in order to keep parking space demand in balance with the amount of parking space that can be made available without sacrificing amenity and convenience.

Resident Serving Commercial

2249

A resident serving commercial center is located in the New Town area and extends from Napa Street to San Carlos Avenue with frontage on both sides of Caledonia Street and frontage on the west side of Bridgeway. The area is intended to provide space for convenience goods and service shops primarily to serve residents of Sausalito. Design solutions should foster safe, pleasant, pedestrian movement and minimize vehicular traffic in this center. It is anticipated that by relating this area more closely to the waterfront lands by pedestrian links and vistas, the quality would be enhanced and the area would become more attractive. Major rebuilding would be needed and off-street parking should be provided as a part of any rebuilding in this area. Public action will undoubtedly be required.

Two residential density categories are shown on the Plan; high density and medium high density. These correspond to the densities permitted by present

2250



## UTILITIES ELEMENT

### Water

The water system should be fully inter-connected and of adequate capacity with fire hydrants installed at spacing not to exceed 350 feet. The size of mains should be sufficient to provide volume to meet sustained fire flow requirements as set forth in the Insurance Service Offices (ISO) standards. 2258

### Sewers

Additional sewer lines will be needed as properties are developed. Boats and other floating structures with human occupancy should be connected to a sewer line if docked or moored for more than 24 hours. 2259

2260

Drainage

Drainage should be designed to take care of local runoff and to handle storm waters originating west of Bridgeway.

Gas and Electricity and Telephone

2261

Existing overhead power and communication lines should be removed and all new and replacement lines should be installed underground or suspended below piers.

OPEN SPACE  
and  
CONSERVATION ELEMENT

Adopted by the City Council  
January 2, 1974.





OPEN SPACE & CONSERVATION ELEMENT  
CHRONICLE OF ADOPTION

- April 16, 1973                    - Open Space Committee approves Open Space Report. Subject Property included as part of South Ridgeland.
- April 26, 1973                    - Recreation Commission approves Open Space Report. Subject Property included as part of South Ridgeland.
- May 7, 1973 &  
May 16, 1973                    - Planning Commission approval of Open Space Report. Subject Property included as part of South Ridgeland.

OPEN SPACE AND CONSERVATION ELEMENT PREPARED BY STAFF

- August 15, 1973                    - Planning Commission review of Open Space and Conservation Element. Subject Property included as part of South Ridgeland. Meeting rescheduled to August 29, 1973.
- August 29, 1973                    - Planning Commission review of Open Space and Conservation Element. Subject Property included as part of South Ridgeland.
- September 13, 1973                    - Planning Commission review of Open Space and Conservation Element. Subject Property included as part of South Ridgeland.
- September 27, 1973                    - Planning Commission approved Open Space and Conservation Element. Subject Property included as part of South Ridgeland.
- November 6, 1973                    - City Council review of Open Space and Conservation Element continued to November 13, 1973. Subject Property included as part of South Ridgeland.
- November 8, 1973                    - Special meeting of Planning Commission held to discuss proposed extension of GGNRA to include Wolfback Ridge, South Ridgeland, Cypress Ridge, and State Highway Lands.
- Area in vicinity of P G & E Substation and 319 Sausalito Boulevard excluded from GGNRA.
- Subject Property not excluded.

November 13, 1973

- City Council review of Open Space and Conservation Element & GGNRA.
- Open Space and Conservation Element returned to Planning Commission with recommendations from City Council.
- Area in vicinity of P G & E Substation, 319 Sausalito Boulevard, and Subject Property (Parcel 65-221-07) excluded from GGNRA.

---

December 5, 1973

- Planning Commission meeting. Discussed Open Space and Conservation Element as per recommended additions and/or changes by City Council.
- Those lands deleted from GGNRA were set for public hearing to discuss deletion from Open Space and Conservation Element.
- Subject Property not set for hearing for deletion from Open Space and Conservation Element.

December 20, 1973

- Planning Commission meeting.
- Area in vicinity of P G & E Substation and 319 Sausalito Boulevard deleted from Open Space Element.
- Subject Property not deleted.

January 2, 1974

- City Council meeting.
- Open Space and Conservation Element adopted.
- Subject Property not deleted.

10/7/74



PART IV SUPPLEMENTARY ELEMENTS  
DIVISION 1: OPEN SPACE AND CONSERVATION ELEMENT

TABLE OF CONTENTS

|                                                                   | PAGE  |
|-------------------------------------------------------------------|-------|
| Background                                                        | IV. 1 |
| The Purpose and Intent of the Open Space and Conservation Element | 16    |
| Areas of Concern                                                  |       |
| 1. Resource Production                                            | 20    |
| 2. Resource Preservation                                          | 22    |
| 3. Health and Safety Related to Open Space Access                 | 27    |
| 4. Scenic Resources                                               | 30    |
| 5. Recreation                                                     | 36    |
| 6. Cultural and Historic Sites                                    | 42    |
| Techniques of Preserving Open Space                               |       |
| 1. Acquisition of Fee Title                                       | 44    |
| 2. Purchase of Open Space Easements                               | 44    |
| 3. Temporary Preservation                                         | 45    |
| 4. Subdivision Dedication                                         | 45    |
| 5. Restrictive Covenants                                          | 45    |
| 6. Gifts of Land for Open Space                                   | 46    |
| 7. Surplus Public Land                                            | 46    |
| 8. Zoning                                                         | 46    |
| Recommendations for Open Space Purchase                           |       |
| 1. Purchase                                                       |       |
| A. Martin Luther King School Site                                 | 47    |
| B. Cypress Ridge                                                  | 48    |
| C. The South Ridgeland                                            | 49    |
| D. The Glen                                                       | 50    |
| E. Action Program for Open Space Acquisition                      | 51    |
| Map 1                                                             | 26a   |
| Map 2                                                             | 29a   |
| Map 3                                                             | 35a   |
| Map 4                                                             | 36a   |
| Map 5                                                             | 39a   |
| Map 6                                                             | 47a   |
| Map 7                                                             | 47a   |



### Background On Open Space Committee Study

In the early months of 1972, it was determined by the Sausalito City Council that the Open Space and Conservation Element should be prepared by the City Staff augmented by a City Council appointed "Open Space Committee," a team of Sausalito citizens including one representative each from the Sausalito City Council, the Sausalito Planning Commission, and the Community Appearances Advisory Board (CAAB). The following persons were appointed to serve on the Open Space Committee: Ms Shelagh Considine, Mr. Dan O'Connor, Mr. Leonard Rappa, Mr. Wayne Wedell, Mr. Peter Bowen, Mr. Sam Zakessian, Mr. Ted Williams, Mr. Roland Mirales, Ms Violetta Autumn representing the Planning Commission, Mr. Paul Ronan representing the CAAB, and Ms Robin Sweeny representing the City Council.

The Open Space Committee first met in April of 1972. Following an extensive survey of available open space land within the City, the Committee compiled a ninety page report documenting hundreds of hours of field and record research and providing specific recommendations for the preservation of open space and conservation resources.

The Open Space and Conservation Element, therefore, is the result of a combination of efforts. It is an attempt to identify the specific concerns which are relative to preserving the environment in Sausalito, to develop policies and goals regarding these concerns, and to present a methodology to implement these proposals.

The report was first presented to the public April 16, 1973. At that meeting the Open Space Committee voted to accept with minor modifications the recommendations drafted Paul Meserve and Dale Hawkins, Planners retained by the City to assist the Open Space Committee in their research and analysis.

The Open Space Committee recommended the following items in their report to the City of Sausalito:

- "1. We recommend approval of the Open Space Committee's report to preserve as permanent open space the following areas:

- A. South Ridgeland



B. Cypress Ridge

C. The Glen

II. We recommend increasing the size of the Cypress Ridge property as shown on the map

A. The City might wish to acquire the Cypress Ridge Open Space and later persuade the County to acquire it for a small County Park in the southern part of Marin County.

III. We recommend that Butte Street never be extended as it would eliminate the creek and beautiful old oak trees. Keep the area as open space.

IV. We recommend the City try and find means of gaining and retaining control of "Area A" shown on the map Exhibit in the vicinity of the Napa Street Pier (possibly via the Land Bank, Redevelopment or other legitimate channels). As much of it as possible should be preserved as open space for permanent public use.

A. The following should be included in order to promote low density use:

1. The Napa Street Pier.

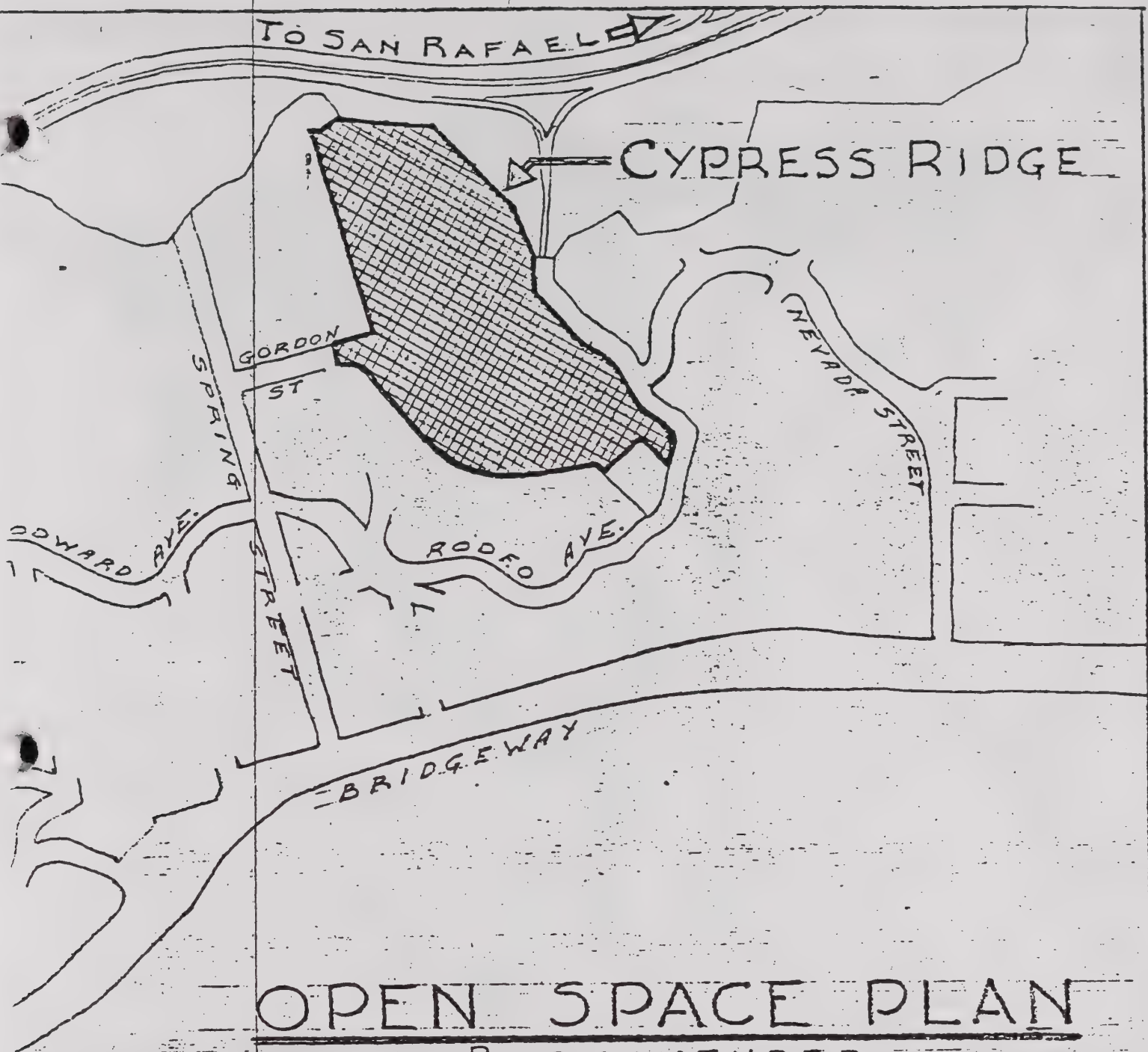
2. The boat works commonly known as Alex & Bob, and Easom's boat works, and the adjacent yacht harbor, should remain where they are unless they can be moved without any substantial upset to the ecological balance.

3. The U.S. Maritime pier (south pier).

4. The U.S. Maritime fishing pier (north pier).

5. Sausalito's last and only beach, and the Dunes, which are not to be altered by any permanent structures.

B. We are concerned with keeping as much as possible of this part of Sausalito's waterfront for open space and conservation uses combined with other uses compatible to the City, because of its



# OPEN SPACE PLAN

RECOMMENDED

BY THE

OPEN SPACE COMMITTEE

FOR

SAUSALITO - CALIFORNIA

## LEGEND



AREAS DESIGNATED FOR OPEN SPACE  
BY THE OPEN SPACE COMMITTEE  
BY UNANIMOUS APPROVAL - FEB. 12, 1973

DATE 4-16-73

"EXHIBIT A"



0 200  
GRAPHIC SCALE



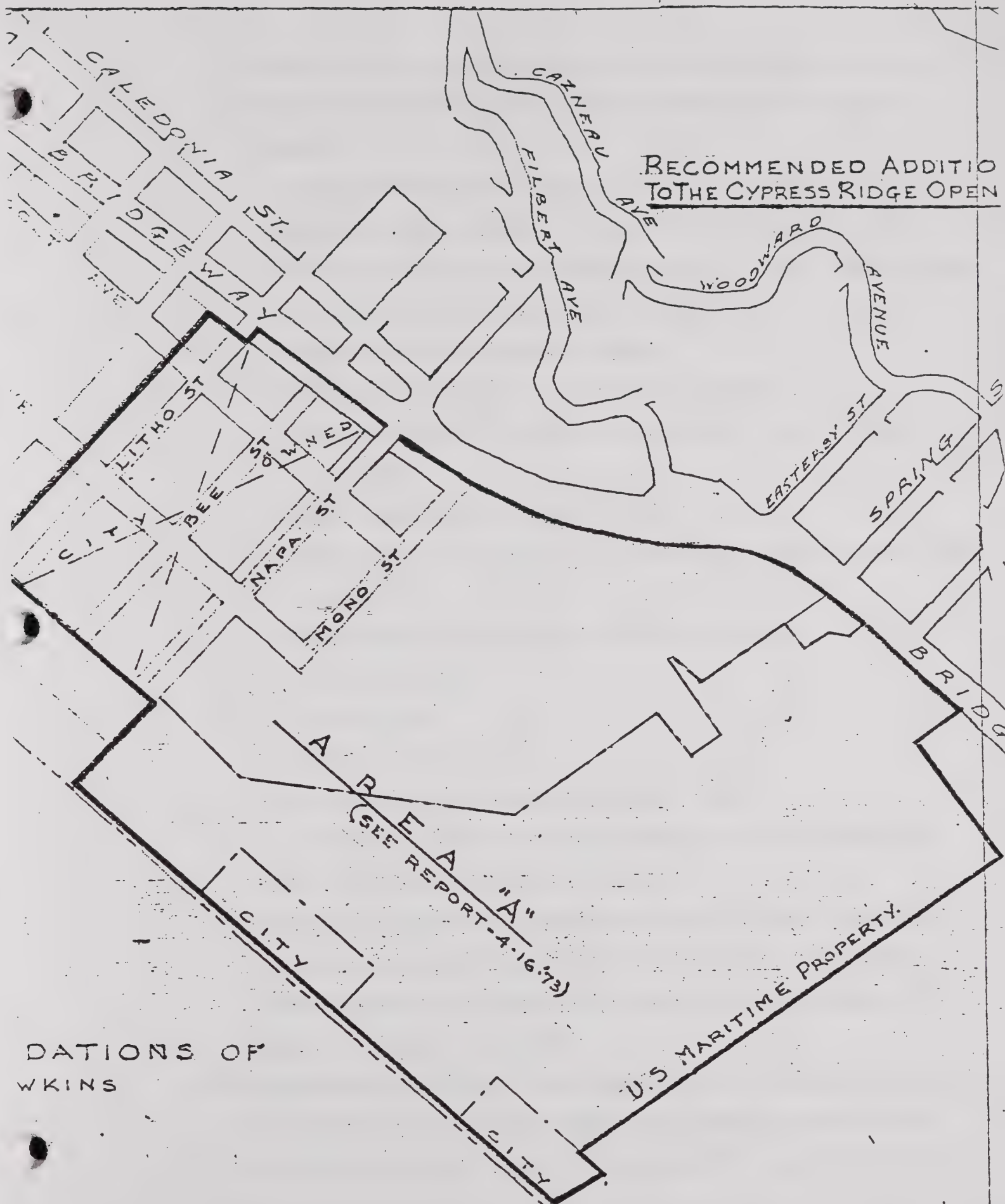


RECOMMENDED ADDITION  
TO THE CYPRESS RIDGE OPEN SPACE



DATE 4-16-73

EXHIBIT B



DATIONS OF  
WKINS





relationship to the City's recently acquired six blocks of land and water and the proposed location for the City Hall at the school property.

By way of description, but not of limitation, some of the numerous desirable community acceptable projects which could happen in this area in addition to existing proposed low density light industries are:

1. New location of art center plus art school.
2. A trade school for maritime artisans.
3. Maritime supply, fuel, ice, snacks, etc. on pier.
4. Future housing for Youth Center and/or a Boy Scouts and Girl Scouts Center.
5. Future recreation for senior citizens.
6. Future sites for art fair or any other festival using all facilities in common.
7. Future location of Yacht Club and/or Sailing Club.
8. Legitimate theater.
9. Private school.
10. College.

These would not be incompatible with water uses.

- C. The boardwalk continuation from the Boat House should be kept open with no boat storage on Humboldt Avenue.
- D. The entire shoreline should be preserved with adequate pedestrian and bicycle access, properly separated, for the public at all times. Pedestrian and bicycle path need not create a hard edge along the water and can vary in elevation.

- V. We recommend a second public boat launching area in addition to the one at Turney Street to be located in Marinship, thereby keeping the car with boat trailer traffic from the north out of the central waterfront area.

We recommend the City should contact the U.S. Government, State of California, County, and School District, and Utility groups owning property in Sausalito to get a guarantee agreement that the City will have first chance at purchase or lease of their land declared surplus for open space or other City use if the property is put up for lease or sale.

VII. We recommend the Open Space Team or a portion thereof, or a newly appointed committee, should be active in making a survey, reporting their findings and recommending possible uses for all of the following:

A. City owned property including:

1. Easements and rights of ways.
2. Street rights of ways that are not streets (possibly due to topographic conditions).
  - a. Consider the uses for walkways, steps and paths to encourage pedestrian traffic and discourage vehicular traffic.
3. Other City owned property.

B. U.S. Government property in the City.

C. State of California property in the City.

D. County property in the City.

E. School property in the City.

F. Utility property in the City.

1. Marin Municipal Water District
2. Gas and electric
3. Telephone and television

Any and all such lands should be considered for possible City use as permanent open space, parks, mini-parks, sitting areas, etc.

With such a plan the City would be in a position to make an intelligent decision of the need for acquiring such lands when they are up for sale.



Investigate pedestrian access for Sausalitos through open space areas for recreational use of adjacent State and Federal lands.

The City should adopt a policy to retain all City owned property.

-Wolfback Ridge-

The city land west of highway 101 is known as Wolfback Ridge. The area is adjacent to the 134,000 acre Golden Gate National Recreation Area.

The initial effort of the Open Space Committee was devoted to a study of a 160 acre area of Wolfback Ridge located north of Wolfback Ridge Road.

The Open Space Element endorses the following findings of the Open Space Committee:

"The Wolfback Ridge area studied consists of approximately 160 acres of undeveloped land cut minimally by Wolfback Ridge Road (Spencer Avenue extended), Rodeo Avenue and Alta Avenue and a few graded roadways. The Open Space Team, after thorough investigation, has determined that ideally preservation of this entire area in open space is desirable. Although the possibility of acquisition at a local level is virtually non-existent, the land is a major ridge of significance to the Marin County region as a whole, and is the only major undeveloped area of its nature within the City of Sausalito.

However, without substantial aid from regional, State and/or Federal agencies, acquisition of the site seems unlikely. The question then becomes: Which of the existing amenities within the area ought to be preserved, what area could be developed, and how?

There are at least two running springs on the property which should be maintained in their natural state for

reasons of beauty, use potential should Sausalito suffer some calamity in the future disruptive to normal water supplies, and historical significance.

Sausalito's founding was essentially based upon San Francisco's need for water and Sausalito's ability to supply such water from such springs. The northernmost of these two springs is in close proximity to two major stands of eucalyptus, one of which follows the water course fed by the spring. The Team recommends that these groves and the spring itself are in the "untouchable" realm, and, further, that no vehicular access to the site be created beyond the unimproved roadway which exists. The Team also recommends that the significant rock outcroppings along the several knolls within the study area, one such located at the intersection of Alta and Rodeo Avenues, should be maintained in their native state. The rock outcroppings are quite spectacular in their relationship to the surrounding lands and deserve and require a substantial open buffer area to maintain that relationship.

The ridgeline itself, running the length of the study area, should be maintained intact simply to preserve the contour of Sausalito's westerly boundary and view.

In the realm of development possibilities, the Team believes that a thorough comparison of cost of acquisition of the study area in toto versus providing necessary urban services for the development of the area as a result of non-acquisition should be conducted. A partial

study in this regard has been conducted previously. The report, prepared by the Sausalito City Manager, indicates that such a comparison is done in a vacuum and does not indicate new sources of revenues that such a development might mean for the community.

Should the site be developed, the Team strongly feels that such development should be pursued in such a manner that, at the very least, a substantial portion of the lands be maintained in open space. To this end, the Team endeavored to delineate those areas which could support and sustain development without impinging upon the "must preserve" areas. They are as follows:

1. The approximately twelve (12) acre ravine beyond the eucalyptus grove off Wolfback Ridge Road. In this area, but without rendering specific recommendation, there could be relatively high density, albeit below the ridge.
2. In the northern spring area long Alta Avenue and below the tree groves, limited residential development could occur. Again, emphasis is placed upon preservation of the spring and surrounding eucalyptus groves.
3. Several Team members suggested that the eucalyptus grove mentioned in #1 (above) could absorb some single family residential type development without severely cutting into the grove itself. The basis for this posture is that the roadway through the grove has already done some damage, and careful development could keep such damage to a minimum without cutting deeply into the natural beauty and ecological value of that grove.



4. Team members also found that, along the northwestern part of the study area, there are flat areas along the ridge top which might absorb some low-profile residential development which would not interfere with the integrity of the ridgeline itself, yet would provide panoramic views for those who might be living there at some later time. Beyond these specific findings, the Team would further comment in general on several aspects of any proposed development. All of the open space which is ultimately preserved ought not to experience any active public usage beyond public access nature walks which should be minimum in scope so as to prevent any major impact upon the ecological balances of and within the area. Such area might be maintained in private ownership to be dedicated at some future time. However, adequate guarantees must be established against their being subsequently used for any other purposes.

The Team also believes that any development in the area should be varied in type so as to avoid an input of one type of person or family. Too, it is the considered opinion on the Team that apartment type complexes should be avoided, and resident ownership encourage. Further, road development and drainage facilities should be maintained in minimal scale as is possible to limit both visual and ecological damage.

Finally, the County of Marin should be urged to seek the preservation of the land area beyond the northerly limits

of the study area in that this land area provides a rational extension of those lands within the City of Sausalito sought for protection and preservation."





Subsequently, these recommendations were presented to the Recreation Commission, the Planning Commission, and the City Council. A summary of action taken by these agencies follows:

- April 26, 1973     The Recreation Commission     "enthusiastically" accepted the Open Space Report with reservations about the Glen. The Commission added that the City should also be prepared to acquire any land which the School District designates as surplus.
- May 16, 1973     The Planning Commission approved the recommendations of the Open Space Committee, with the exceptions of items IV-A (1), (2), and (5). The above items were excepted because two commissioners felt that on declaring a position regarding these areas, they would prejudice the current review of a project that includes the areas in question. The Planning Commission also gave approval to the recommendation of the Parks Commission that Bayside and Martin Luther King Schools, should they become available for open space, be acquired by the City as open space and that this recommendation be included in the Open Space Element.
- June 19, 1973     The City Council authorized Staff to proceed with the preparation of the Open Space Element using materials received from the Open Space Coordinators.

It is with this direction and extensive work completed by the Open Space Committee that the City of Sausalito has prepared the following Open Space and Conservation Element.



## The Purpose and Intent of the Open Space and Conservation Element

Section 65302 of the California Government Code requires the adoption of Open Space and Conservation Elements. Section 65910 requires the adoption of an "open space zoning ordinance consistent with a local open space plan adopted pursuant to Sections 65560-65570. Further, Section 65860 requires that zoning be consistent with the General Plan or else "Any resident or property owner within a city or county, as the case may be, may bring an action on the Superior Court to enforce compliance . ."

It is intended that implementating ordinances will be adopted pursuant to the recommendations of this element.

The State has set a deadline for the adoption of an open space ordinance and zoning consistent with the General Plan by January 1, 1974 and adoption of open space and conservation elements by December 31, 1973.

The State's goals in requiring an open space element are:

1. To maintain community scale and identity and to maximize opportunities for future decisions regarding the directions of urban growth.
2. To achieve a sense of natural openness within urban environments.
3. To coordinate open space uses with other land uses for mutual enhancement and creation of a 'human' urban environment, which includes development and expansion of recreational land, conservation of natural and man-made amenities, and preservation of options with regard to agricultural land after evaluation of other uses.
4. To use all possible means to establish policies and plans for the preservation of open space within the limits of economic, physical and political feasibility.

The movement to preserve open space has gained strength from three major sources: the conservationist, the planner and the recreationist. The conservationist has traditionally been concerned with the preservation of land and water resources, wild life, and natural beauty unspoiled by man. The planner has been concerned about

an orderly, efficient and attractive environment in which open space gives form to communities and provides relief from urban congestion and sprawl. The recreationist looks to open space as an opportunity to provide both passive and active recreational resources of various types on parcels of land that range from urban "vest-pocket" parks to mammoth natural recreation areas. The social scientist has recognized the need to provide open space in urban areas to curb social disorders resulting from human interaction in an overly contained environment.

This Open Space and Conservation Element is directed to six areas of concern. A sensitive response to the requirements of each of these areas of concern are needed to achieve a harmonious environment in which to live. The areas of concern include the following: resource production; resource preservation; health and safety related to open space areas; scenic resources; recreation; cultural and historic sites.

The following review of environmental concerns supports a finding that this element assures the maintenance, restoration, enhancement or protection of the environment.

- I. Description of the Element (see Chapter I: the Purpose and Intent of the Open Space and Conservation Element.)
- II. Description of Environmental Setting (see "Sausalito Today" section of the General Plan.)
- III. Environmental Impact - The scope of the Element includes more than recommended areas of open space acquisition (see page 44); it sets forth development guidelines and recommended zoning that would preserve natural resources, guarantee public access to scenic and recreational areas, encourage preservation of fishing facilities and historic sites, improve project review procedures and standards to



as the greater architectural compatibility and increased landscaping, promote preparation of seismic safety and urban design elements, control the number and location of structures proposed in open space areas to preserve springs, water-courses, tree clusters, and, most importantly, the natural contour of the ridge lines.

IV. Any Adverse Environmental Effects Which Cannot Be Avoided if the Proposal Is Implemented. The Element's proposals to acquire land available for development would affect the potential supply of housing in the City.

V. Mitigation Measures Proposed to Minimize the Impact. The O.S.E. provides for beneficial environmental impacts in accordance with the goals and objectives of the State Environmental Quality Act. The adverse impact of possible increase in housing price perhaps may be mitigated by compensating with higher density elsewhere or City housing subsidies, but these measures may result in distinctly adverse environmental impacts as a result of congestion and strain on municipal financial resources, respectively.

VI. Alternatives to the Proposed Action. The alternatives to the Element range from no action to a no-growth policy. This Open Space Element advocates reasonable control of development and Open Space acquisition to achieve the stated objectives of the Element.

VII. The Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity, and VIII. Any Irreversible Environmental Changes Which Would Be Involved in the Proposed Action Should It Be Implemented. The Element addresses itself to strategies for the permanent preservation of open space through acquisition and development control. Although there is no means by which the City can bind future action by

the City regarding use or disposition of purchased properties, the purchase of open space for open space use is intended to be an irreversible action.

VIII. The Growth-Industry Impact of the Proposed Action. The Element is directed toward a reduction in the development of environmentally sensitive areas.

## Resource Production

Although Sausalito does not possess areas to be used for such industries as agriculture, timber, and mineral production, its location and facilities make it important to the fishing industry.

The City of Sausalito, according to local fishermen, offers commercial fishermen the best combination of location, market, services, and facilities in any port in the San Francisco Bay Area.

The city is frequently a port-of-call for vessels from Fort Bragg and the Monterey-Moss Landing area, and occasionally for boats from as far away as Alaska, the Pacific Northwest, and the Gulf of Mexico. Around 50 boats are based in Sausalito and an estimated 250 fishing boats visit the city per year. The State Department of Fish and Game reports that the value of fish landed in Sausalito in 1970 (prices paid to fishermen) totalled \$658,049 as compared to a value of \$741,946 for San Francisco in the same year.

Sausalito is the closest port to the Golden Gate and is easily reached by both local and transient fishing vessels, a fact which is especially important to fishermen during severe ocean storms.

Boat repair is a vital link to both commercial and recreational boating. Of the boat repair facilities in Sausalito, one such facility has a design capacity of 400 tons (it presently is operating at 250 tons capacity). Other boat repair facilities have smaller capacity ways and are used primarily for yacht and smaller boat repairs.

Fishing and boat repair facilities in Sausalito are supported by auxiliary services including wholesale bait outlets, various chandlery and marine equipment outlets, and fuel docks.

The fishing industry represents a unique Sausalito resource. It is important that this resource not only be preserved but expanded as the need arises. While protecting a vital resource production industry, Sausalito has the opportunity of preserving an important element contributing to the history and character of a working waterfront.

### Objectives

1. Maintain existing facilities for the fishing industry in Sausalito.
2. Encourage the preservation of uses vital to the fishing industry.

### Action Program

1. Promote every effort to preserve the use of the Army Corp of Engineer's northern pier as a fishing facility.
2. Investigate techniques that would provide an incentive to a developer to preserve certain uses vital to the fishing industry.
3. Support State Legislative proposals that promote the preservation of resource production facilities.



## Resource Preservation

The preservation of natural resources often allows for the maintenance of vital biological ecosystems while providing for esthetic enjoyment and leisure time activity. The natural resources of Sausalito are strikingly apparent: they include the bay, bayshore, hills, trees, springs, and streams. The following map (Map 1) locates springs, wells, and watercourses within the City.

The protection of natural resources involves safeguarding Man, plants and other animals from the normal effects of nature and from the effect of short-sighted human alteration of these natural resources. Our use of the land should recognize the existence of ecological systems including the important role of microorganisms. Resource preservation does not mean total prohibition of natural resource areas for other use; it means the wise and managed use of land including the preservation of the normal functioning of natural systems and provision for development compatible with surrounding areas.

A harmonious relationship should be established between the natural environment and use of the land. Careful consideration must be given not only to the conservation of natural resources vital to Man, but to the conservation of natural resources that comprise unique habitats vital to the survival of animal and plant species.



The California Nature Plant Society has identified the following rare, endangered, and possibly extinct plants within Marin County:

|                                          |                                               |                           |
|------------------------------------------|-----------------------------------------------|---------------------------|
| Plagiobothrys<br>glaber                  | Agrostis blasdalei                            | Delphinium bakeri         |
| Campanula<br>californica                 | Calamagrostis<br>crassiglumis<br>(Reed Grass) | Ceanothus gloriosus       |
| Chaetopappa<br>bellidiflora              | Pleuropogon<br>hooverianus                    | Ceanothus masonii         |
| Circium hydrophilum<br>Var. vaseyi       | Trifolium amoenum                             | Cercocarpus<br>traskiae   |
| Erigeron supplex                         | Fritillaria<br>liliacea                       | Castilleja<br>leschkeana  |
| Streptanthus<br>batrachopus              | Lilium maritimum<br>(Coast lily)              | Castilleja neglecta       |
| Rhychospora<br>californica               | Hesperolinum<br>congestum                     | Cordylanthus<br>maritimus |
| Arctostaphylos<br>Densiflora             | Sidalcea hickmanii,<br>ssp. viridis           |                           |
| A. montana                               | Chorizanthe<br>valida                         |                           |
| A. virgata<br>(Bollinas manzanita)       | Eriogonum caninum                             |                           |
| Agrostis<br>aristiglumis<br>(Bent grass) | Eriogonum caninum                             |                           |
|                                          | E. nortonii                                   |                           |
|                                          | Polygonum<br>Marinense                        |                           |

The environmental impact report for the Southern Marin wastewater interceptor identified the following rare and endangered species in Marin County (the list would be longer with inclusion of wildlife that have not survived in Richardson Bay due to pollution, i.e. anchovies, crabs (dungenous), oysters, clams, mussels, sardines):

Salt marsh harvest mouse

California brown pelican

Aleutian Canada goose

Redbellied red-shouldered hawk

Ferruginous hawk

Southern bald eagle

American osprey

Prairie falcon

American peregrine falcon

Greater sandhill crane

California clapper rail

California black rail

Mountain plover

Alaskan short-billed dowitcher

California least tern

California yellow-billed cuckoo

Northwestern tropical kingbird

Yukutat fox sparrow

Alameda striped racer

White sturgeon

Thicktail chub

Sacramento perch



It is important that the recognition of natural resources provide initial direction to land use planning. Before development takes place, the impact on natural resources should be assessed and, where conflicts occur, appropriate changes in a development plan made.

### Objectives

1. Preserve the entire shoreline with adequate pedestrian and bicycle access, properly separated. Pedestrian and bicycle paths need not create a hard edge along the water but should generally conform to the shoreline.
2. Preserve natural watercourses as identified by Map 1 and, where possible, use these watercourses for recreational purposes and City beautification.
3. Preserve springs identified by Map 1 as an emergency water source and as a potential supplement to the present water supply.
4. Preserve grassy ridgeland, rock outcroppings, and major tree clusters.
5. Preserve sandy beaches for public use.
6. Minimize the development of open water areas.
7. Prohibit any development or activity that would pollute any natural resource.
8. Restore covered springs and watercourses to a natural state whenever possible.
9. Encourage public access to scenic watercourses.

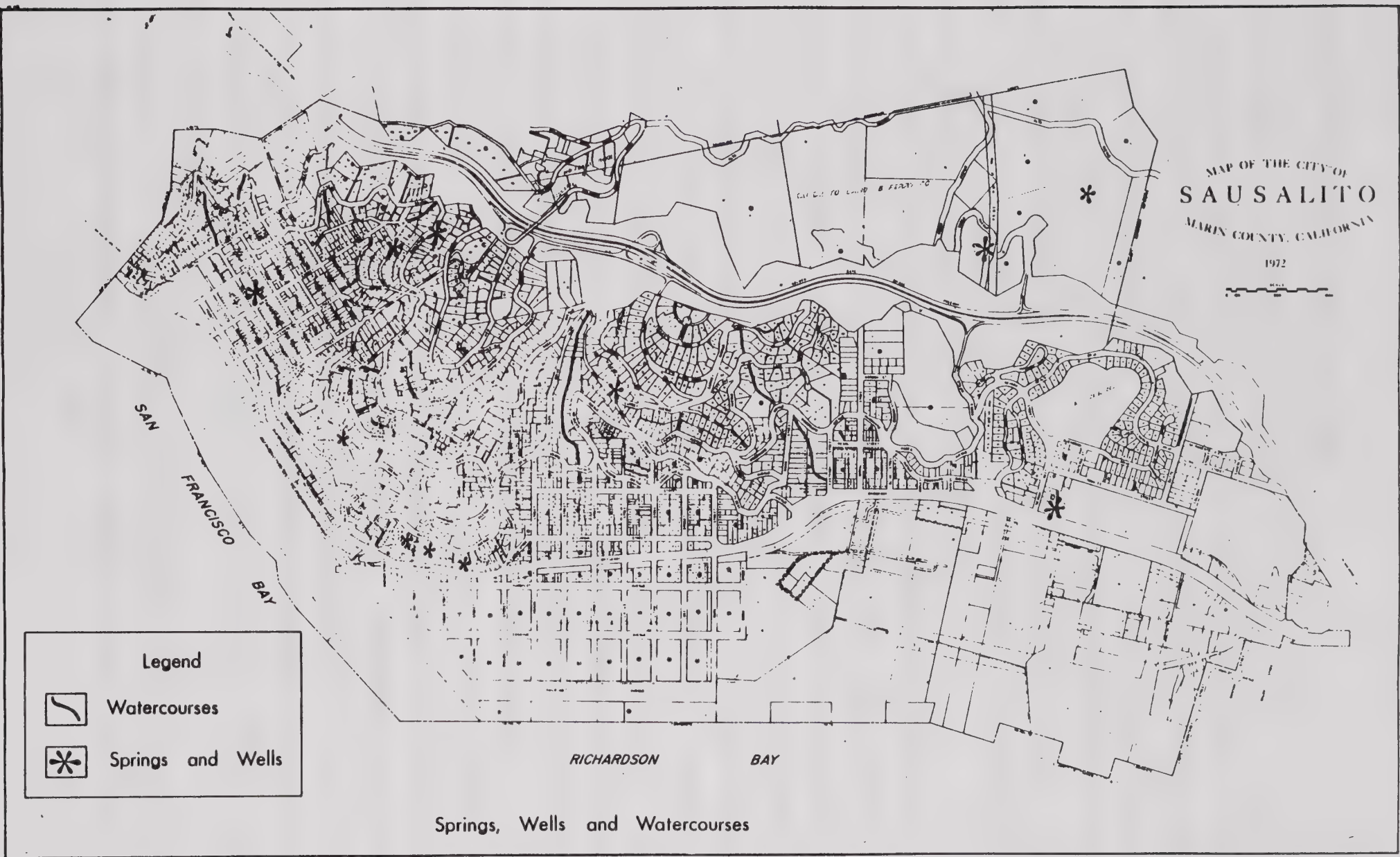
### Action Program

#### -Zoning-

1. Review zoning to achieve the objective of minimum development of open water.

- Non-zoning -

1. Acquire public access to scenic watercourses (i.e. the Glen).
2. Review applications for development in light of: 1) Section 655b7 of the State Planning and Zoning Law which states that "no building permit may be issued, no subdivision map approved, and no open space zoning ordinance adopted, unless the proposed construction, subdivision or ordinance is consistent with the local open space plan," and 2) the fact that the expressed objectives of this element include that
  - a) structures be clustered if necessary to preserve ridges, springs, watercourses, and other natural resources, and
  - b) permanent public access shall be provided to the waterfront.



Springs, Wells and Watercourses





## Health and Safety Related to Open Space Access

Safety plays an extremely important role in Man's ability to live in harmony with the environment. Most of Marin County, for example, is sandwiched between two major active fault zones, the San Andreas and the Hayward, both of which have generated great earthquakes during the 200 years of the recorded history of the area. State law requires general plans to include a seismic safety element "consisting of an identification and appraisal of seismic hazards such as susceptibility to surface ruptures from faulting, to ground shaking, to ground failures, or to effects of seismically induced waves such as tsunamis and seiches."

There are many factors that determine structural damage from earthquakes, some more important than proximity to the epicenter. Different geological materials react differently to earthquakes, depending on such factors as density, cohesiveness, and water content. In general, the greatest earthquake vibrations will occur within the superficial unconsolidated materials — bay mud, artificial fill, landslide deposits, alluvium, and colluvium. The dangers in landslide-prone areas will be greatly multiplied if a great earthquake occurs during a period of saturation.

Although earthquake damage is the first concern usually associated with safety, attention must also be given to soil and rock conditions, slopes, landslide areas, noise zones, water deficient area/fire hazard areas, and other hazards.

Erodeable slopes are lands whose percent of slope and surficial soil type makes erosion, slippage, or construction a potential hazard. The moisture content of the soil will effect erodibility and the degree of slippage. Maintaining natural vegetative cover can control erosion problems, thereby reducing property damage and expense. Preservation of a slope in a natural condition can be an esthetic addition to an area. In addition, these areas may provide for linear recreation, vista points, and possibly wildlife habitats.

Certain soils have susceptibility to erosion and present difficulties in construction of high density urban development. Basically, these are wetland soils, shallow soils

overlying bedrock, poorly drained wet soils, clay soils, and soils on steep slopes.

Most of the dry and tideland areas in Marinship are the result of fill placed over a relatively thick layer of mud resulting in a crust over an unstable base. Although most of the settlement has already occurred, the existing condition is still somewhat precarious. A large portion of the dry land area was filled at the time the shipyards were developed during World War II. Since that time there has been piece-meal filling by individual property owners at different time, which in turn has caused different rates of settlement. This makes it difficult to predict the actual or differential settlement that may occur in conjunction with new projects.

Certain areas within the City are not provided with a public water supply, sufficient to allow for safe and adequate fire protection. These areas have been identified by the Sausalito Fire Department (Map 2).

#### Objectives

1. Assure that the location and design of development will avoid or minimize hazards from earthquake, erosion, fill settlement, landslide, flood, fire, and accidents.
2. Assure that the suitability of soil or rock formations for development will be a basis for determining the nature of development to be permitted.
3. Prohibit development in areas where adequate fire protection cannot be provided.

### Action Program

1. Assure that Environmental Impact Reports will fully document any potential safety hazard related to seismic conditions, fill settlement, erosion, landslide, and/or fire.
2. Initiate discussions with the County of Marin and the cities within the County to engage in a joint seismic safety study that will include the mapping of landslide, erosion, soil and seismic hazard areas and subsequent adoption by the City of appropriate development restrictions.
3. Use the Seismic Safety Element as a guide for updating the Open Space and Conservation Element and Zoning to assure that development does not take place in areas prone to seismic hazard.
4. Identify those areas where a seismic safety study indicates soil or slope conditions warrant special consideration for development and condition development accordingly.
5. Include consideration of existing soil conditions as a part of the architectural and site plan review.
6. Use the water deficient zone map as a basis for determining those areas where building permits will be withheld until provision is made for adequate fire protection.









## Scenic Resources

The character and beauty of the City of Sausalito is exemplified by its wooded hills and bay exposure. The scenic qualities evident in Sausalito have been the prime attraction for both permanent residents and visitors.

Views have become increasingly important in terms of scenic enjoyment and property values. The visual beauty of Richardson Bay, for example, is a major element in preserving views in Sausalito. Basically, Sausalito enjoys two major view attractions: the view of the bay as one sees it looking down from the hillsides and the view of the hills and Mt. Tamalpais, as seen from various viewpoints. It is important that both of these points of view be considered in reviewing development applications and implementing the provisions of this Element. View corridors down streets, special vantage points from which to view the Bay, preservation of views from private properties, and the treatment of roofs as one looks toward the water play an important role in optimizing the beauty of viewing the water.

The scenic qualities of Sausalito are further exemplified by the garden atmosphere one experiences as one drives through the hillside residential areas. Small landscaped parks are found throughout Sausalito. These parks add to the visual beauty of the area and to the enjoyment of residents and visitors.

Three ordinances have been passed by the City of Sausalito regarding vegetation on public property. Ordinance 472 as adopted in 1955 provides for the establishment of a standing "Tree Committee" advisory to the City Council, one or more members of which are nominated by the Sausalito Woman's Club. This ordinance makes it unlawful to plant, remove, prune, or injure any tree, bush, shrub, or similar plant on public property without first having secured written approval of the Superintendent of Streets. In 1959 Ordinance 563 was adopted which provides for appropriate markings or plaques on selected trees upon the recommendation of the Tree Committee. This ordinance also makes it unlawful for any person, firm or corporation to cut, prune,



break, injure or remove a tree which has been dedicated unless and until a written permit to do so has been obtained from the City Council and signed by the Mayor. One hundred forty-four trees in the City have been designated as "Dedicated Trees". These two ordinances have proven to be of inestimable value in preserving the scenic qualities of Sausalito.

Ordinance 812, adopted by the City of Sausalito in June 1973, also controls the removal of trees on private property. Any tree which is 15 feet or more in height is controlled by this ordinance and cannot be removed without a permit from the appointed tree committee. The basic intent of this ordinance is to control both trees and views. Removal of trees without reasonable restraint would destroy the natural beauty of certain areas, contribute to erosion, reduce protection against wind, and impair residential privacy and quiet. The provisions of this ordinance regarding trees on private property and the intent of Ordinances 472 and 563 give a great deal of attention to the subject of scenic quality in Sausalito.

The largest portion of the City's open space consists of its streets. A sense of open space, or lack of it, is experienced at one's place of residence, places visited for social, dining, shopping, recreational or other purposes, and as one moves through an area, either by foot, bicycle or automobile. Streets are open space and should be made attractive and pleasant experiences by design of configuration, street furniture and landscaping. In addition, streets provide valuable opportunities for scenic vistas and open space links.

The Bridgeway Scenic Vista sketch map (Map 3) is an example of a preliminary analysis of only one aspect of urban design as applied to one street: essentially the study focuses on:

- 1) major sections of Bridgeway with significant bay views,
- 2) certain structures and landscaping that obscure views of the bay.

The areas numbered on the map are explained as follows:

- 1) April 2, 1956 the City granted permits for the encroachment of two carports



at the end of Valley Street leading to the City's only sand beach. Unobstructed view corridors down streets that are perpendicular to Bridgeway are marked with arrows leading to the bay. The best example of view corridors are Main Street, Richardson Street, Ensign Street, and Turney Street.

- 2) Old pilings used to moor the ferry boat Berkeley and the Sausalito Yacht Club are the only structures that obstruct a grand panoramic view of Richardson Bay and San Francisco from the Gabrielson Park area.
- 3) Buses parked along Humboldt Street and sheds along the Humboldt boardwalk used for storage of sailing equipment block views from Bridgeway just north of Bay Street. Any new marina design or re-design of existing yacht harbors should include provision for low profile storage bins on floats rather than tall storage sheds on the boardwalk.
- 4) Many years ago, a house was illegally located in the middle of Pine Street east of the railroad right of way. An elderly lady lives at this residence and apparently it is a matter of human concern that the City has not taken action to remove the structure. Steps should be taken, however, to assure that there is no misunderstanding that the structure will be removed prior to any change of tenancy.
- 5) An old frame structure at the end of Napa Street and the Napa Street pier itself block views of the bay. In review of development applications that include piers, the City should assure that no pier should encroach on a city street that is perpendicular to Bridgeway, unless such pier is a city pier for public use.
- 6) An office structure is unfortunately located at what could be called "the crest of Bridgeway," and blocks a striking view of the bay. Any similar land now in Army Corps of Engineers ownership that might be declared surplus should be obtained by the City for open space preservation.

In any case, no structure along the embankment on the Army Corps of Engineers property should be higher than the surface of Bridgeway.

- 7) At the present time, the entrance to Harbor Boulevard from Bridgeway affords a peek at the bay at the end of a long view corridor. This view corridor will be obscured by recent planting of trees and shrubs located close to the street right of way. Harbor Boulevard will become one of the more important streets in Sausalito with development of the Marinship, and the future of a view corridor down this street appears very important from an urban design standpoint. It is, therefore, recommended that development controls be implemented to control the location of all signs, structures, trees and hedges within a reasonable setback from the street.

As stated before, the above analysis is only a preliminary look at one aspect of one street. It is strongly recommended that the City initiate and vigorously implement an Urban Design Element of the General Plan covering the entire City. With sensitive analysis, dramatic change can be accomplished at minimal cost.

The discussion in the Resource Preservation Section of objectives and implementation related to open water, springs, watercourses, tree clusters, and grassy ridgeland generally relate to the objectives and implementation of this section.

#### Objectives

1. Promote visual qualities and view potential of both natural and man-made settings when reviewing development applications.
2. Encourage generous landscaping for all types of new development.
3. Control tree-cutting while allowing for selective cutting to enhance views.
4. Upgrade and/or maintain city property with an on-going beautification program.

5. Assure that the scale and texture of large scale projects is in keeping with the scale and texture that characterize the City.
6. Preserve existing views from the streets.
7. Provide pedestrian and bicycle paths to enhance enjoyment of views in the hills and along the waterfront.
8. Provide pedestrian and bicycle path systems for access to scenic areas and to enhance circulation throughout the City.
9. Underground utilities whenever feasible.
10. Assure that the height and location of structures be controlled to preserve views.

#### Action Program

##### -Zoning-

1. Review zoning ordinance standards and review procedures for all landscaping, utility undergrounding, and building design, height and location for achievement of the above objectives.

##### -Non-Zoning-

1. Insure with a function of project review that structures, shrubs and trees and any signs along Harbor Drive be located a sufficient distance from the street right-of-way to permit a view corridor to the bay.
2. Insure as a function of project review that private piers and other structures are not located in a manner that would interfere with street view corridors.
3. Insure that any cut, fill or retaining structure is accomplished or installed with minimum disruption to the environment and require the planting of new trees, shrubs, vegetative cover, or other design alternatives to further minimize the disruption.

4. Prepare an urban design element as an integral part of the General Plan, and implement it with a well-defined action program.
5. Promote a well-designed landscaping program for city parking lots, city trails and streets.
6. Grant encroachment on city property only if there is a significant public benefit or to avoid a definite hardship without adversely affecting the public welfare. Review encroachment permits periodically at not less than 3 year intervals. After review, encroachment permits adversely affecting the public interest should be revoked.
7. Assure that proposals for tree cutting, tree heights that endanger view corridors, and major tree planting are reviewed by the Tree Committee.
8. Make access to the Bay and view corridors to the Bay (particularly from streets leading to the Bay) conditions of any waterfront development.



## Recreation

Recreation Open Space allows people to relax in a pleasant environment, participate in sports, learn about their environment, and enjoy nature. Recreation open spaces are those areas specifically designed to allow and encourage the public to participate in these activities. Increased recreational demand requires not only more land but also more facilities for a wider range of activities. Recreation open space must provide the land and the variety of activities to meet the needs of all segments of Sausalito's population.

The existing system of park and recreational facilities in Sausalito is both unique and varied: Small vest-pocket parks are tucked into hillside residential areas; waterfront parks have been created to be enjoyed by tourists and residents alike; and active recreation areas provide play equipment and spectator sports areas. The following list identifies the existing park and recreation facilities in Sausalito and are located on the following map (map 4). A total of 6.21 acres is currently devoted to park and recreational facilities in Sausalito. This 6.21 acres represents approximately 1 acre of park per 1,000 population as compared to 5 acres per 1,000 population as recommended by the National Recreation and Park Association and 4 acres per 1,000 population as recommended by the League of California Cities.

### EXISTING PARK AND RECREATIONAL FACILITIES

1. Valley Street Beach - A .12 Acre sandy beach reached via stairs between carports at the east end of Valley Street.
2. South View Park - A .61 acre park with entrance on North Street between Third and Fourth Street including one tennis court, basketball court, children's play area, small lawn area and sitting area.
3. Tiffany Beach - A small sand beach of .05 acre east of Bridgeway at east end of North Street
4. Tiffany Park - A decorative green area of .21 acres located west of Bridgeway at east end of North Street.

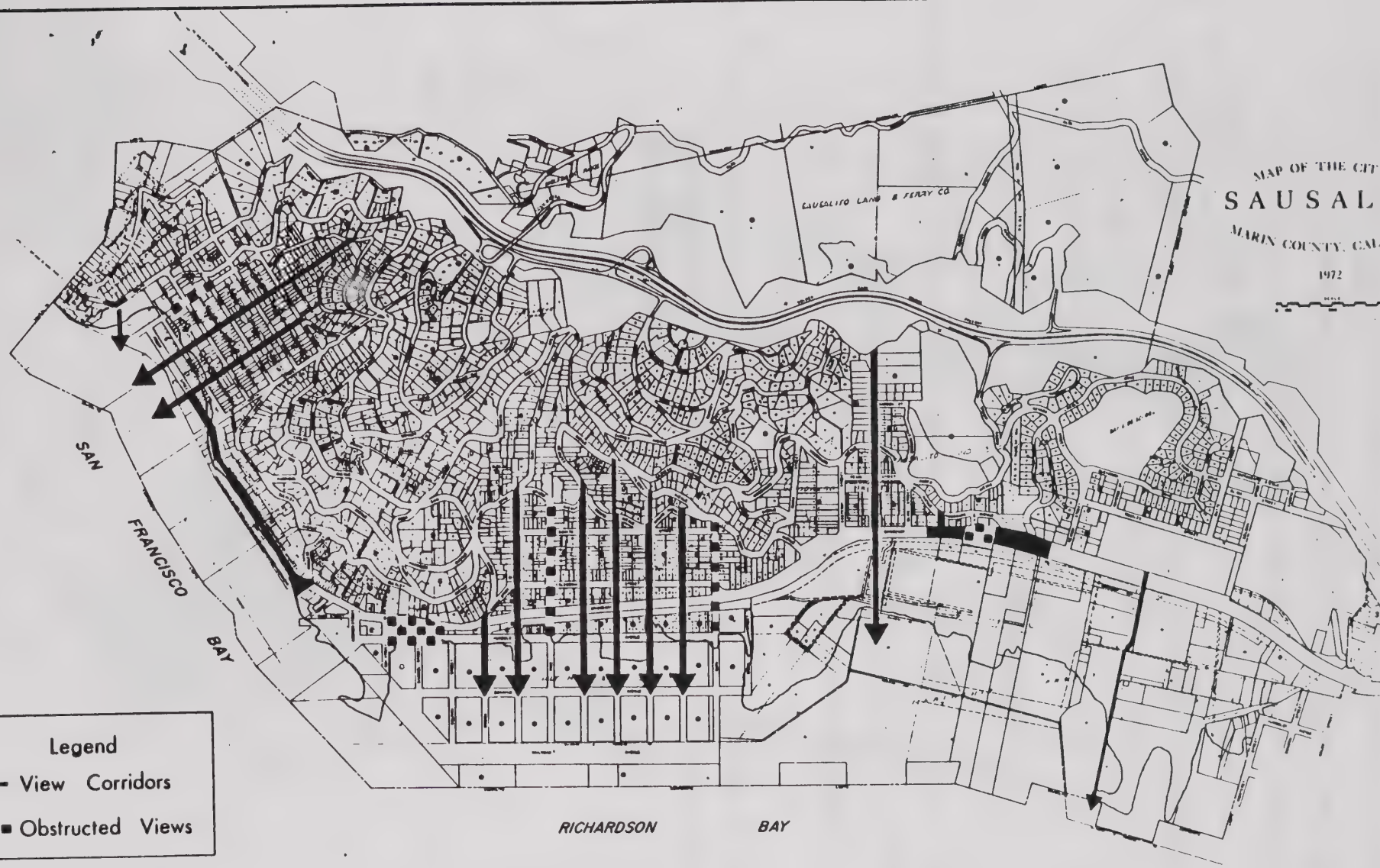
5. Municipal Fishing Pier - A small, heavily used fishing pier complete with benches and landscaping located on the bay side of Bridgeway in the 500 block.
6. Princess Park - A small but intensely used park of .12 acre on the bay side of Bridgeway at Princess Street with landscaping, lights, benches, access to water, and a view of San Francisco.
7. Vina Del Mar Plaza - The .19 acre, main downtown park located at the intersection of Bridgeway, Anchor, and El Portal Streets consisting of lush landscaping, a fountain, and decorative sculpture. The elephant lamps were obtained for the 1915 Panama Pacific Exposition in San Francisco. The park is named in honor of Sausalito's sister town in Chile.
8. Gabrielson Park - A .59 acre waterfront park outboard of Parking Lot #1 fronting on Anchor Street and consisting of lawn area, benches, modern metal sculpture, picnic tables and a view across Richardson Bay.
9. Harrison Playground - A .14 Acre park located opposite the Star of the Sea Church on Harrison Avenue with playground equipment and a picnic table.
10. Cazneau Playground - A small children's playground of .09 acres located near the intersection of Cazneau and Girard with slide, swings, and sand boxes.
11. Turney Street Ramp - A boatlaunching area with one float located at the end of Turney Street leading into the bay.
12. Earl Dunphy Park - A 9.78 Acre (8 acres underwater) waterfront park outboard of Bridgeway between Napa and Litho Street which is being developed by the volunteer labor of Sausalito citizens.
13. Civic Center - An asphalt playground with basketball courts and area for other recreational activities is now located within the Civic Center complex at the old Central School site to be purchased by the City as specified in the recently approved bond election.

MAP OF THE CITY OF  
**SAUSALITO**  
 MARIN COUNTY, CALIFORNIA  
 1972

**Legend**

← View Corridors

■ ■ Obstructed Views



Bridgeway Scenic Vista Sketch Map



MAP OF THE CITY OF  
**SAUSALITO**  
MARIN COUNTY, CALIFORNIA

1972



City Parks and Recreation Areas



14. Langendorf Park - This .35 acre park located at the intersection of Easterby and Woodward Avenue contains a small children's area, lawn, play equipment area with concrete slide, picnic area with barbeques and benches.
15. North View Park - A .53 acre unimproved site above Bridgeway at the intersection of Woodward and Marin Avenues with a beautiful view of Richardson Bay.
16. Tennis Courts (Martin Luther King School) - These courts and play fields are located on .69 acres of land at the Martin Luther King School and are open for use by Sausalito residents through an agreement with the school district.
17. Cloud View Park - The facilities at this .52 acre park located on Cloud View Road westerly of Booker Avenue include a children's play area, restrooms, a small meeting room and sitting area.

In addition to these park and recreation areas, a system of pathways and trails exist throughout Sausalito. Although in many cases these paths are not continuous, they have proven to be invaluable time savers in providing a system whereby the residents of Sausalito can walk to and from points in Sausalito without following the existing street system. These pathways not only provide short-cuts for Sausalito citizens but encourage them to walk as an alternative to driving the automobile. Such a system must not only be preserved but should be expanded throughout Sausalito. The following map (Map 5) identifies the existing pathway system and delineates proposed trails.

The school system in Sausalito presently maintains recreational facilities on its property. The City should work closely with the School District toward acquisition of any abandoned facilities and planning of new facilities. It is important that the school district and City continue to coordinate use of facilities for the maximum benefit of the public.

#### Objectives

1. Provide park and recreation areas for all age and interest groups.
2. Insure public access to and along the waterfront and a public-use easement for a major pedestrian and bicycle corridor that generally conforms to the shoreline.
3. Assign priority to the needs of residents in park and recreation planning and expenditures.
4. Provide for a continuous and safe bike and pathway system in Sausalito as an alternative means of transportation.
5. Coordinate recreational facilities with the school district.
6. Minimize the traffic impact of the Golden Gate National Recreation Area to Sausalito, while encouraging pedestrian links between Sausalito and the Golden Gate National Recreation Area.
7. Encourage and promote gifts of land and/or facilities for recreation open space.

## Action Program

### -Zoning-

1. Review the zoning ordinance provision for a lesser sideyard setback along a trail.

### -Non-zoning-

1. Conduct a periodical survey of Sausalito citizen groups when determined necessary by the Recreation Committee to establish what additional recreational facilities should be provided or what additions should be made to existing facilities.
2. Increase local awareness of the existence of the public beach at the end of Valley Street to encourage increased use by residents.
3. Preserve, upgrade and provide resident information on the existing system of pedestrian paths. The following paths should be improved: the steps between Pearl Street and Woodward; another set between William Court and Bayside School; and steps between Crescent Avenue and Sausalito Boulevard at the top of Main Street. The following paths should be developed: (referring to Map 5), paths numbered 4 or 5, 25, 29, 30 or 31, and 37.
4. Inventory all illegal encroachments on city trails and require either removal or application for an encroachment permit to determine if the encroachment should be made legal or be removed.
5. Negotiate easements for trails, special vista points, and areas for active and passive recreation with those public agencies with land holdings in Sausalito, placing particular emphasis on the use of State Division of Highway land for hiking trails.
6. Improve space at Central School for indoor and outdoor recreation, meetings and similar activities. Coordinate recreational facilities use and planning









with the Sausalito School District and insure the acquisition of the tennis courts and play fields at the Martin Luther King site in the event the school site is declared surplus.

7. Participate closely in planning with the Golden Gate National Recreation Area Committee to insure that access to the park, parking, ancillary facilities, etc. will be convenient to residents, yet not cause an adverse impact resulting from heavy regional traffic through residential neighborhoods.
8. Widen existing bike paths and make them safer.
9. Study routes for additional bike paths including links with regional recreation areas.
10. Develop resting and view benches along paths, watercourses and springs.





## Cultural and Historic Sites

In researching the history of Sausalito, it does not take long to recognize that Sausalito's past is quite varied. It was first a settlement of the Miwok Indians, then, consecutively, part of a vast rancho, a whaling port, railroad town, ferry terminal, fishing village, dairy market, wealthy summer resort . . . a town for gambling, Prohibition bootleggers, ship building, artists' colony. It would take a separate document to adequately address each of these areas in Sausalito's past.

Many remaining Open Space and Conservation areas that should be permanently preserved on the basis of their historic interest also coincide with listed areas of open space and conservation interest. Examples include the willow grove at Whiskey Springs (trees from which the City takes its name) and the springs that once provided water to the whalers and San Francisco as well as the City of Sausalito.

## Objectives

1. Identify and preserve unique historic structures and sites as a legacy for future generations.
2. Consider the preservation of any historical structures or sites in review of any development proposal.

## Action Program

1. Investigate which lands or buildings will be eligible once the State Board of Equalization and the State Park and Recreation Committee have set criteria for the recent State legislation passed to allow local communities to arrange for tax credits for the owners of historically significant lands and buildings.

2. Adopt a Historic Preservation Element of the General Plan and adopt implementing zoning following a thorough inventory of historical sites and structures by the Sausalito Historical and Landmarks Committees.
3. Initiate a citizen study under supervision of the Historic and Landmarks Committees to inventory historic sites and structures preliminary to the draft of a Historic Preservation Element of the General Plan.

## Techniques of Preserving Open Space

### 1. Acquisition of Fee Title

Full purchase of an open space area may result in the purchase of some parcels by negotiation and others by condemnation. Condemnation is often expensive and time consuming. It is sometimes desirable to selectively purchase key parcels which are essential in preserving the open space character of an important scenic area. The purchase of key parcels within an area recommended for open space acquisition may accomplish substantial open space benefits at significantly less cost. Purchase and leaseback may be accomplished by full purchase of property and then obtaining a leaseback from the owner for uses that will not interfere with public enjoyment of the property. Purchase with the return of a life interest is accomplished when property is purchased in full with the owner retaining the use of the property until his death. The grant of the lifetime use should reduce the price paid for the property. Purchase and resale with restrictions is accomplished by purchase and resale of land with deed restriction placed upon its use, to allow for uses that will not interfere with public enjoyment of the property.

### 2. Purchase of Open Space Easements

Easements allow for an interest in the land which involves a limited privilege of use or enjoyment for other parties than the fee simple owner. It may continue in perpetuity or for a designated lifetime. It may be either affirmative (allowing certain uses of the land) or negative (restraining the owner from certain uses or acts). Affirmative easements could also require certain acts of the owners, such as road maintenance or other acts involved in upkeep of the property. Easements can sometimes be acquired for small cost while at other times the cost is so great that land might as well be purchased outright.

Rather than purchasing an entire parcel, the City may offer to purchase a scenic or recreational use easement on only a portion of a parcel, while providing the owner the benefit that the easement does not reduce the area of the parcel for calculation of allowable density of development.

### 3. Temporary Preservation

The Open Space Easements Act, Sections 51050 through 51065 of the State of California Government Code, provide for property tax relief on land approved as an open space resource, provided that the land is preserved for open space for at least 20 years. The prime disadvantage of the program is that it provides tax relief with no guarantee of future preservation. It is strictly an interim opportunity for short-term open space preservation. Future public purchase cost would increase in accord with any appreciation in land value. Utilization of the program is strictly voluntary on the part of the land owner and usually requires county review and approval.

### 4. Subdivision Dedication

Subdivision dedication is usually accomplished by local ordinance implement of State law as set forth in Section 11546 of the Subdivision Map Act, which reads in part as follows: "The governing body of a city or county may by ordinance require the dedication of land, the payment of fees in lieu thereof, of a combination of both for park or recreation purposes as a condition to the approval of a final subdivision map or parcel map . . ." Although the City has not adopted an ordinance to implement Section 11546 of the Subdivision Map Act, the City has adopted an ordinance imposing a "construction tax" of \$300 per residential unit, the proceeds of which are dispensed to the City's general fund.

### 5. Restrictive Covenants

Restrictive covenants for joint preservation of open space land are accomplished when adjacent land-owners bind themselves and their successors to use and enjoy their land in a restricted way. They may be entered into by property owners within open space areas to set aside certain portions of their property for open space purposes as a gesture of good will and as an opportunity to take the initiative in determining appropriate areas of the land to set aside for open space.



## 6. Gifts of Land for Open Space

Donations can be obtained as a result of a public relations program in which officials, or a committee, seek out and negotiate with potential donors. The donor can deduct the present market value of the property from his income tax, which often makes this donation of substantial tax benefit to the donor. Land may also be willed for public use.

There are distinct tax, public relations, and philanthropic benefits to providing gifts of land for public use. Local or non-profit organizations that specialize in providing free consultation on the tax and other advantages of land gifts for public use include the Nature Conservancy and the Trust for Public Land, both in San Francisco.

## 7. Surplus Public Land

Surplus public land may be acquired on various bases including: a competitive bid and right of first refusal. It is also possible that surplus land may be donated by a governmental body or transferred at little or no cost under special programs such as the program administered by the Bureau of Outdoor Recreation for transfer of surplus Federal land to local agencies for recreational purposes.

## 8. Zoning

Zoning has been used as a tool to enforce many land use restrictions. It is, however, subject to change. Decreasing the allowed density, or decreasing the coverage or floor area for a parcel can assist in preserving open space. Of the types of zoning which have been used, cluster or planned unit development zoning has been most effective in preservation of open space, in that, in some sense, it pays the property owner for the land he has allocated for open space in the form of 1) increased density on other portions of his land and 2) economy of costs in provision of services. The Open Space Committee Report on Wolfback Ridge recommends the clustering of residences to create significant open space areas. The report on Wolfback Ridge, contained in the Background Supplement, is endorsed by this Open Space Element.

## Recommendations for Open Space Purchase

### 1. Purchase

The Open Space Committee analyzed the desirability for open space of all private lands shown on Map 6, public lands and private undeveloped parcels. Each parcel was analyzed on the basis of: vegetation, creeks and streams, wildlife, weather and climate, views and exposure, surrounding uses, and public use proximity. It was following this exhaustive study that the Committee recommended purchase of three areas identified on Map 7 for permanent open space preservation: the South Ridgeland, Cypress Ridge and the Glen. Acquisition of the Martin Luther King school site for recreational use was recommended by the Recreation Commission following review of the Open Space Committee's study.

#### -Martin Luther King School Site-

The Martin Luther King School site, located west of Bridgeway and adjacent to the north city limits, is a 20 acre parcel which may be declared surplus. The Commission feels that the City should assign a high priority to preserving the flat playground area in order to gain what could be the City's only park affording the terrain and facilities which could offer active recreational facilities and sports.

Map 7 shows the Martin Luther King site in two sections. The properties have been divided in order to permit discussion on the relative merits of acquiring all or a part of the property.

Section 1 of the Martin Luther King site includes tennis courts, a gymnasium, a softball field, and a flat playground area. Parcel 2 contains the school complex. In the event voters in a bond election may feel that the entire school site is too great an expense, there should be the option to acquire that portion of the property now in recreational use.



MAP OF THE CITY OF  
**SAUSALITO**  
MARIN COUNTY, CALIFORNIA  
1972



Public Lands and Private Undeveloped Parcels





-Cypress Ridge-

Cypress Ridge is located east of highway 101 and south of Rodeo Avenue. The major entry to the property is by a service road approximately 75 yards east of the freeway on Rodeo. It is a moderately sloping road, winding a large "S" shape across the property. An extension of it drops down to large water storage tanks directly adjacent to the Ardilla Apartments. Additional pedestrian access should be provided from Gordon Street and Gordon Court to the south.

This property serves as a natural ridge line separating the Nevada and Spring Street Valleys. The upper knoll is green and brush-covered, not entered by road, but rather by a well-used foot path. Eucalyptus surround the knoll and form light groves throughout the property.

The most dominant growth is eucalyptus, Scotch broom, acacia, scrub oak, manzanita, and cypress. There is evidence of much animal use, especially in the steep slope of the Spring Street Valley. The views from the property are Strawberry Point, Tiburon, Wolfback Ridge, Waldo Point, Mount Tam, Nevada Street Valley, Spring Street Valley, Angel Island, Oakland, Berkeley, Schoonmacher property.

There is much evidence (foot paths) of local use, although the property shows no evidence of litter, strewn garbage, etc. There has been some minor fill dumping at the mouth of the property.

The prevailing winds are from the west, and while the property is a high point of the slope, there seems to be an exclusion from the prevailing fogs and ill-tempered weather known by Wolfback, an immediate neighbor.

Section 1 of the Cypress Ridge property is the least buildable due to the steepness of the terrain and therefore less valuable per square foot. Parcel 2 has the advantage of a wider vista and flat area for a larger picnic and recreation area.

### -The South Ridgeland-

The South Ridgeland is bounded on the south and southeast by the Marin Headlands State Park lands, on the west by the State highway lands adjacent to Wolfback Ridge and on the north by Old Town. Except for a fire road, public utility facilities, a structure once used as a PG&E substation, and roadway easements, the entire area is untouched and in its native wild state. It presents a green backdrop to urban Sausalito and a generous extension to permanently green State lands. From all parts of this green belt, breathtaking views of the Bay are afforded.

As its historical name implies, Hurrican Gulch is the path for the ocean breezes and rolling fog which comes at certain times of the year and which hugs the ground like a waterfall on its way to San Francisco Bay. At other times, it is a sun-pocket of mild climate.

The landscape consists of steep embankments, chaparral covered rolling hills with dramatic rock outcroppings, and deep ravines thickly forested and frequently harboring running water, limited hiking trails and exceptional lookout points.

This undisturbed hillside presents a balance of animal and plant life. An ecological refuge, it is a bird and animal watchers' delight.

Residential development of this area could have serious consequences. The holding capacity under present zoning could be as much as 225 dwelling units. Edward Avenue (n.-s.) offers the only entrance to the area. Exit is available by way of Edwards Avenue (n.-s.) and Edwards Avenue (e.-w.) one way. Hecht Avenue, an extended cul-de-sac fire trail, fronts the majority of the parcels but could not provide service to any parcels other than those on the first few hundred feet unless the road connects with Sausalito Boulevard.

-Action Program for Open Space Acquisition-

1. Based on the detailed study of the Open Space Committee and the recommendations of the Recreation Commission, it is recommended that the City initiate proceedings on a bond election for the acquisition of the following open space areas:

| <u>Area</u>             | <u>Acres</u> | <u>Assessor's<br/>"Market" Value</u> |
|-------------------------|--------------|--------------------------------------|
| a. South Ridgeland      | 27.7 acres   | \$ 199,828                           |
| b. Cypress Ridge 1      | 7 acres      | 139,600                              |
| c. Cypress Ridge 2      | 8.5 acres    | 203,000                              |
| d. The Glen             | .5 acres     | 13,000                               |
| e. Martin Luther King 1 | 8.5 acres    | not assessed                         |
| f. Martin Luther King 2 | 11.5 acres   | not assessed                         |

The cost of purchase may range from 50% to 300% of the Assessor's "market" value depending upon the parcel (Assessor's "market" value is the assessed value multiplied by four). The total cost of the parcels at current value would be approximately 1.5 to 2 million. For the most economical purchase of land in the South Ridgeland, it is recommended that the bond amount be set at Assessor's market value for the selective purchase of parcels that are particularly important in terms of preserving scenic and recreation resources.

2. It is recommended that the tax for new construction be placed in an open space and parks acquisition and maintenance fund.

-The Glen-

Access to the glen is available from Cazneau Avenue at the point the street makes a hairpin turn approximately midway between its intersections with Glen Drive. The 20,000 square ft. site is a lush glen consisting of clusters of large California Laurel (Bay) which form an impressive overhanging cover for an all-year creek and small pond. Other vegetation include a stand of eucalyptus, native grasses, ferns, ivy, California buckthorn, wild grape and raspberry vines. The site is protected from prevailing winds and provides a usable flat area adjacent to the creek. The Open Space Committee report on the area states:

The only reason, in our opinion, that this place wasn't a park years ago is that it is so hidden. It is a very large quiet restful place. This open space because of the year round creek and existing terrain would make a healthy, inexpensive, ~~terrific~~ beautiful swimming-hole place for Sausalitans during summers. On the other hand, it would be very pleasant if allowed to remain in its primitive state. A few more rope swings might be a good idea. This area resembles the Madrone Canyon area of Larkspur."



## SCENIC HIGHWAY ELEMENT

The State of California established the Scenic Highway Program in 1963 to preserve those areas of natural or landscaped beauty along state highway corridors. The purpose of the scenic highway element, therefore, is "the development, establishment, and protection of scenic highways..." In order for any portion of a highway to be designated as an official scenic route, it must first be eligible as one of those highways specified in the Streets and Highways Code Section 263. Then, upon application by the City as well as completion of a study by the State Department of Transportation, a designation can be made.

There are no direct advantages to a scenic highway designation other than the questionable advantage of gaining special State of California signs decorated with the California poppy emblem and the "scenic highway" label. A possible disadvantage is a potential increase in sightseer traffic.

## GENERAL OBJECTIVES

1. Although it is recognized that the relatively unspoiled view from Highway 101 is a local and regional asset which should be preserved, the City does not contemplate an official scenic designation of Highway 101.
2. Shoreline pedestrian walkways shall be encouraged to allow pedestrians scenic enjoyment of the bay.
3. Bridgeway shall continue to be used as the primary vehicular and bikeway route through the City. Although the scenic qualities of this route are recognized by the City, no scenic designation is anticipated by the City.

## GENERAL DESCRIPTION

The General Plan Diagram, Part III, illustrates the location of the primary circulation systems in Sausalito. Of particular scenic interest, Highway 101 and Bridgeway provide unspoiled views of the bay and surrounding shorelines. The waterfront pedestrian walk provides an enjoyable experience for pedestrians to appreciate the scenic qualities of the bay. It is a goal of the City to provide pedestrian access along the shoreline throughout Sausalito. Bridgeway also functions as the primary bikeway route through the City of Sausalito.



SEISMIC SAFETY/SAFETY

ELEMENT

\*\*\*\*\*

6/1/78





## SEISMIC SAFETY/SAFETY ELEMENT

This Element to the Sausalito General Plan examines the geologic setting, analyzes geologic and safety hazards, and provides a hazard reduction/disaster preparedness program.

Seismic safety identifies and appraises geologic hazards and discusses the resulting risk to people and property. These hazards include fault ruptures of the earth's surface, ground shaking, ground failures including mudslides, landslides, liquefaction, and slope instability, and the effects of earthquake-induced waves.

General safety involves the protection of the community from geologic hazards, floods, and fires. Safety hazards such as building collapse, water, gas, sewer, and electric line damage; communications disruption; and fire or explosion potential are included.

The City of Sausalito Emergency Organization has prepared a plan to conduct operations in order to save lives and protect property, repair and restore essential systems and services, provide a basis for direction and control of emergency operations; provide for the protection, use, and distribution of remaining resources, provide for continuity of government, coordinate operations with the emergency service organizations of other jurisdictions.

Sausalito contracted with the County and the California Division of Mines and Geology in a cooperative program of geologic mapping, geologic hazards identification and evaluation. The program provides the technical background and substantiation for most of this element.

The intent of this Element is to reduce potential injury and loss of life and to lessen possible property damage.

## REFERENCE

The technical information prepared by the California Division of Mines & Geology and additional technical support data is on file at City Hall. Such technical support data and Emergency Plan are contained in the supplement to the General Plan which is incorporated herein by reference.

## GENERAL DESCRIPTION

The following figures illustrate Seismic Safety/Safety characteristics of Sausalito:

|          |                                    |
|----------|------------------------------------|
| FIGURE 1 | Land Stability                     |
| FIGURE 2 | Water deficient areas in Sausalito |
| FIGURE 3 | Flood Hazard Area                  |

## RELATIVE LAND STABILITY

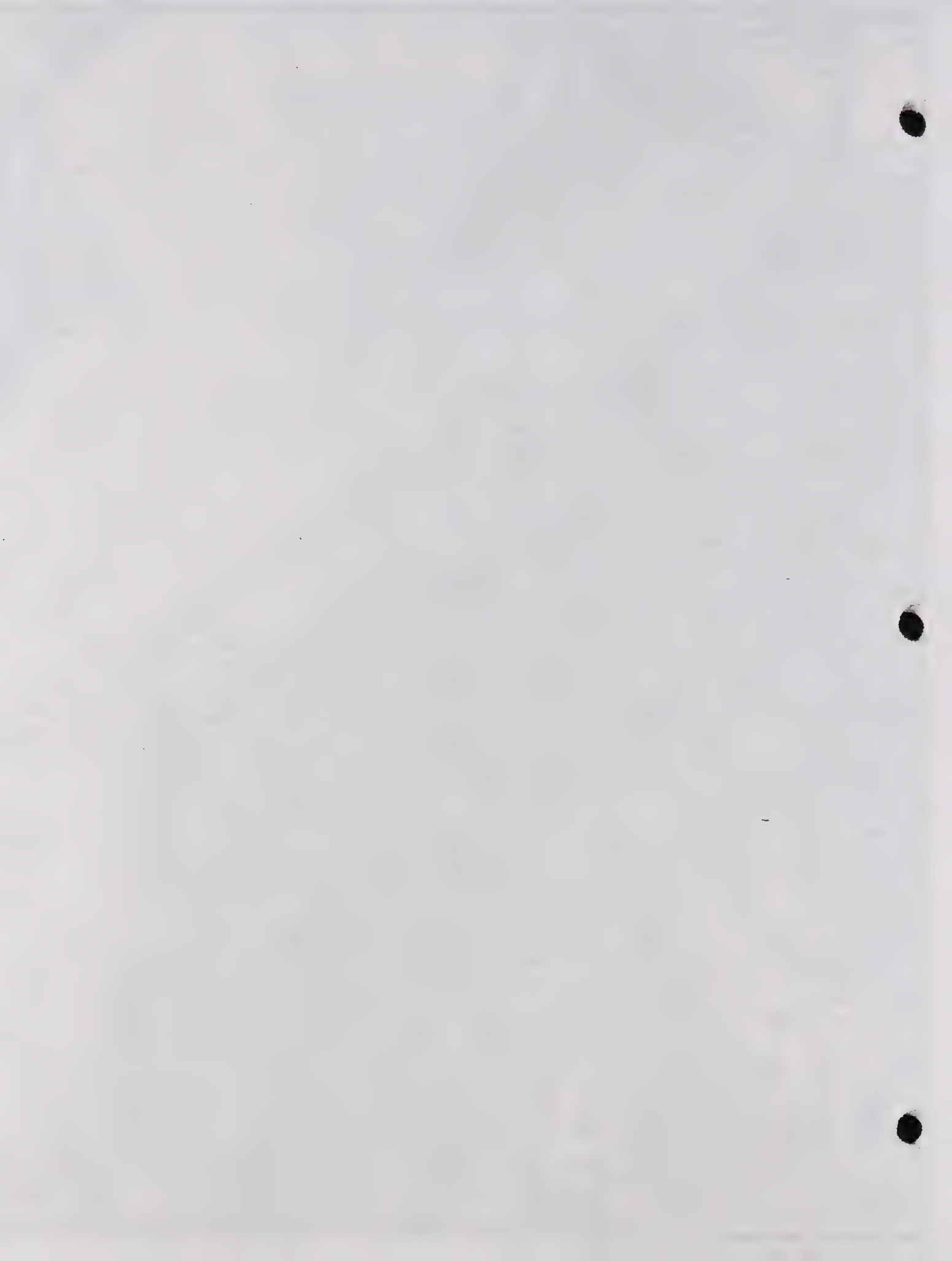
- Zone 1 - The most stable category. This zone includes resistant rock that is either exposed or is covered only by shallow colluvium or soil. Also included in this zone are broad, relatively level areas along the tops of ridges or in valley bottoms that may be underlain by material that is quite weak (such as Franciscan melange matrix and allugium) but occupies a relatively stable position. Some landslide deposits that have moved to relatively stable positions at or beyond the base of the slopes from which they were derived are also included in Zone 1.
- Zone 2 - Includes narrow ridge and spur crests that are underlain by relatively competent bedrock, but are flanked by steep, potentially unstable slopes.
- Zone 3 - Areas where the steepness of the slopes approaches the stability limits of the underlying geological materials. Some landslide deposits that appear to have relatively more stable positions than those classified within Zone 4 are also shown here.
- Zone 4 - The least stable category. This includes most landslide deposits in upslope areas, whether presently active or not, and slopes on which there is substantial evidence of downslope creep of the surface materials. These areas should be considered naturally unstable, subject to potential failure even in the absence of man's activities and influences. Banks along deeply incised streams are also included in Zone 4.

These judgments are interpretive, and apply generally to large areas. Within each area conditions may range locally in detail through all stability categories. Hence, an area designated 1 may locally contain unmapped landslides, and an area designated 4 may locally contain relatively stable sites.

mu - The bay mud, underlying the bay plains, marshlands, and mudflats, has unique and severe stability problems that are not comparable to those of the uplands. Bay mud is unconsolidated, semi-fluid, and highly compressible. Thus it is highly sensitive to loads placed on it, reacting by compaction and lateral flow to cause settlement of the fill -- often differential settlement -- that continues for many decades where the thickness of the mud exceeds about 25 feet.









## OBJECTIVES

The basic goal of any community is to maintain a healthy and balanced environment. The following seismic safety/safety objectives further articulate this goal for the City of Sausalito.

1. Closely regulate development in areas prone to fire, flood and landslides;
2. Regulate the construction of concentrated or hazardous uses; including schools, institutions, or high-density housing in fault zones, flood plains, and severe geologic risk areas, to assure public safety.
3. Require thorough field investigation of geologic hazards as a prerequisite to development approval, and require site work to minimize such risks.
4. Maintain and update an Emergency Plan to incorporate and coordinate all the facilities and personnel of the city into an efficient organization capable of reacting adequately in the face of any disaster, and for the management of critical resources in the City of Sausalito and the County of Marin Operational Area of which this city is a part.

## PRINCIPLES

### SEISMIC SAFETY

1. Applications for developments proposed to be sited on landslide deposits, non-engineered fill, or bay mud shall be accompanied by a geotechnical engineering investigation directed to the problem of ground shaking and ground failure. The engineering geologist and civic engineer shall submit recommendations regarding site development, structural engineering, drainage, etc.
2. No structure which is necessary for public safety or the provision of needed emergency services shall be built in an area subject to geologic hazards and consequent structural failure unless the only alternative sites would be so distant as to thereby jeopardize the safety of the community served.
3. The design of structures to be occupied by a large number of people, such as restaurants and hotels, shall accommodate any constraints dictated by the foundation site conditions, as determined by the engineering geologist and civic engineer conducting the site investigation. Such structures shall be designed to be as safe as similar structures in locations not subject to excessive ground shaking or other geologic hazard.
4. Projects (defined as more than one single family house on an existing single family lot) proposed for slopes rated 3 or 4 in stability classification (CDM&G...) shall be evaluated for stability prior to consideration of site design or use. The evaluation should include the structural foundation engineering of the actual site and should include possible impact of the project on adjacent lands. Where, in the course of review, it is determined to be necessary, this evaluation shall also apply to construction on existing single family lots.
5. In projects where such evaluations indicate that state-of-the art measures can correct instability, the City should require that the foundation and earth work be supervised and certified by a geotechnical engineer and where deemed necessary, an engineering geologist.

6. Known landslides and landslide-prone deposits on steep slopes should not be used for development except where engineering, geologic site investigations indicate such sites are stable or can be made stable providing appropriate mitigating measures are taken. In such cases, it must be shown to the satisfaction of the City that the risk to persons or property or public liability can be minimized to a degree acceptable to the City.
7. In locating structures within flood hazard areas, consideration should be given to filled land which is underlain by compressible materials (bay mud, marsh, slough) should receive special attention during site planning; soils investigations should include borings and sufficient examination to determine the location of former sloughs and other factors which would accentuate differential settlement; the investigation should delineate those areas where settlement will be greatest, subsidence will occur, etc. and should recommend the site preparation techniques which could be employed to preclude hazard.
8. Site planning should accommodate the areas of greater potential for differential settlement in uses which would not be damaged by such activity and which would provide minimum inducement to settlement which is detrimental to persons, property and public investment.
9. Site preparation shall include, where necessary, several years of settlement monitoring, sufficient for detailed foundation engineering and site planning to be based on the site's particular characteristics.
10. Surcharge may be a necessary site preparation and other mitigating measures designed to accommodate compression and settlement may be required in high risk areas where surcharge is necessary.
11. Structural design of foundations and utilities shall reflect the potential for differential settlement and subsidence.
12. In locating structures on parcels within flood hazard areas, consideration should be given to placement of persons beyond the range of injury from a tsunami; improvements should be designed to withstand impact from the tsunami; and the debris it will carry; these improvements which could become dislodged or detached (docks, decking, floats, vessels) should be situated so that they do not become potential implements of destruction.

#### SAFETY

1. The City should re-evaluate flood prone areas regarding changes to elevations as a result of off-site development or natural forces.
2. The City should undertake a program of identifying and mapping extreme fire hazard areas. This should be done in conjunction with the Fire Department and based upon criteria drawn from that of the State Division of Forestry as applied by the City Fire Department.
3. Land development and residential building permit application should be referred to the City Fire Department for review and recommendation.
4. New subdivisions and land divisions in areas identified as having extreme fire hazards should only be allowed where it is determined that adequate on or off-site fire suppression water supply is or can be made available. For residential subdivisions access should be provided from more than one source where feasible. Fire trails and fuel breaks should be required to be constructed where necessary as a mitigation of excessive risk if at all possible. If development is to occur in extreme fire hazard areas, fire resistant materials, clearances from structures, and landscaping with fire resistant plants should be required.

5. The City Fire Department, in concert with the Division of Forestry and the National Park Service, shall encourage and promote the maintenance of existing fuel breaks and emergency access routes for effective fire suppression.
6. The City shall continue to implement the latest Uniform Fire Code.
7. The City should develop a program whereby existing and potential property owners can be informed of potential safety hazards.
8. To insure that the Sausalito Emergency Plan remains viable and fully appropriate to the needs of Sausalito, a program of periodic review is established and is to be:
  1. At the direction of the Mayor or the Director of Emergency Service or the City Manager.
  2. No less than bi-annually from anniversary date of the plan.





NOISE ELEMENT

Adopted by the City  
Council July 18, 1979



## NOISE ELEMENT

The noise element provides quantitative information on existing noise sources to assist in land use decisions for areas in proximity to those sources. It also sets community goals regarding the design of new noise sources and the protection of noise-sensitive uses.

### General Objectives:

1. Alert the public regarding the potential impact of excessive transportation noises as well as stationary noise sources.
2. Provide the public with information on methods to reduce the noise impact of excessive noise from sources not subject to city regulation.
3. Establish compatible land use categories with respect to noise tolerance adjacent to major transportation systems and endeavor to protect areas that are presently quiet from future noise impacts.
4. Minimize excessive noise levels of existing and future transportation facilities and stationary noise sources so that noise does not jeopardize the public health and welfare.

### General Principles:

1. Consider the effect of existing or new noise sources in the implementation of the other elements of this plan.
2. Consider acoustical protection of noise-sensitive projects in identified noise locations early during the design review process.

### General Description:

The General Plan Part III Plan Diagram shows the general location of the two major noise sources in Sausalito: U.S. Highway 101 and Bridgeway. The diagram also shows the Marinship industrial area, which is the most likely location of potential stationary noise sources.

## Transportation Systems

### Objectives:

1. Assess the noise levels associated with all present and future major transportation systems in the city.
2. Evaluate existing and future city streets with the objective of avoiding high volume traffic flows through residential areas.
3. Provide the public with information concerning the effects of transportation system noise and methods of mitigating the impacts of excessive noise.

### Principles:

1. Consider noise criteria in the purchase of vehicles, equipment and tires for use by the city.
2. Cooperate with federal, state and regional agencies in implementing noise abatement programs.

#### Description:

Figure A shows contours for traffic related noise on U.S. Highway 101. Figure B shows the contours for Bridgeway. The contours are shown in increments of five decibels and the sound levels are expressed in A-weighted decibels or dB(A), the units of an acoustical network weighted at certain frequencies to simulate the response of the human ear.

#### Stationary Sources

##### Objectives:

1. Minimize the increase in noise levels in areas in proximity to potential noise sources.

##### Principles:

1. The noise produced by an activity, other than from transportation systems or construction projects, shall be mitigated at the source.
2. Design review procedures for projects with potential as significant noise sources shall consider noise attenuation at the earliest point in project design.

##### Standards:

1. Zoning building and noise ordinances shall establish acceptable noise standards and employ effective techniques for noise abatement of stationary noise sources.

#### Supplementary Data:

Further information on the effect of noise on persons and property and standard abatement strategies is provided in the supplement to the General Plan which is incorporated herein by reference.



II

THE GEOLOGIC SETTING OF SAUSALITO

Lying on the northeastern side of the Marin Peninsula, much of Sausalito occupies a very steep, but surprisingly stable geologic setting.

The rocks that make up the southern part of the peninsula, from the vicinity of Rodeo Avenue to the Golden Gate, are part of a great contorted "slab" of ancient rocks that originally comprised part of the earth's crust beneath the Pacific Ocean. These rocks originated about 140 million years ago, during Mesozoic time, when dinosaurs ruled the lands. But the North American continent hadn't yet accumulated western California; the site of the present Bay Area was probably covered by some 10,000 feet or more of ocean water. The Atlantic Ocean was still something of a strait, but was rapidly (maybe 5 or 6 inches a year) being widened as North America and Africa separated. As the North American continent moved westward, it crushed against and thrust over the bottom of the Pacific Ocean. In a sense, the Marin Headlands "slab" is one of the larger relatively coherent remnants of this sweeping process that resulted from the continental migration.

These relatively coherent and unshaped rocks of the Sausalito area are mainly of three types, greenstone, chert, and sandstone. They have been described in detail, and well illustrated, by Schlocker (1975).

The greenstone (a general name for slightly altered submarine lavas) is a strong rock that underlies many of the steepest slopes in Sausalito. This is the rock exposed in the high, almost vertical highway cuts on the Waldo Grade just north of the tunnel. The prominent "bouldery" appearance of the rock in one of these cuts is a structure (called pillow structure) that is characteristic of most lavas erupted under the sea. Though strong in its fresh condition, greenstone weathers relatively easily to form a clay-rich soil; as a result, its slopes are mostly rounded and grassy, with prominent outcrops of rock. Its soils are not particularly stable on slopes, but thick deposits of them do not accumulate on the steep slopes characteristic of Sausalito because erosion removes them about as fast as they form from the bedrock. These are, therefore, essentially bedrock slopes, with high stability -- though the strength of the rock is put to severe and questionable tests in the Waldo Grade highway cuts.

Chert is the most prominent and colorful rock type in this Marin Headlands sequence. It is the thin-bedded rock prominently exposed in road and street cuts and on sharp rocky ridge crests and spurs. It is mostly reddish brown in cuts and sea cliffs, but ranges from bright red to yellow to pale green, and is bleached grayish white in many natural outcrops.

Chert is a very stable rock chemically, so it is not attached and altered to clay by weathering processes as are most other rocks. This is the reason chert crops out so prominently, and tends to form the backbones of the ridges in this area. It is also one of the principal reasons for the general high stability of many of the very steep slopes in Sausalito.

Sandstone, the third principal rock type in the Marin Headlands sequence, is a massive to thin bedded type of sedimentary rock that is gray in deep road cuts, such as the west side of the first cut north of the Golden Gate Bridge on the Waldo Grade (the east side of that cut is chert). Sandstone is altered easily by weathering processes, so it is nondescript, buff-colored, crumbly rock in most shallow street cuts, and seldom crops out on natural slopes in this area. The sandstone is the weakest, but also the least abundant of the rocks under these slopes.

Though they are now contorted, somewhat re-arranged by minor faulting, and mostly steeply dipping, these rocks almost certainly originated on the ocean floor as a single, essentially horizontal sequence with the lavas (greenstone) on the bottom, overlain by the thin-bedded chert, and that overlain by sandstone.

The great, relatively coherent slab just described is in fault contact on its northern margin with highly disrupted rock material of the Franciscan melange. The melange underlies much of the rest of southeastern Marin County, and is the principal source of slope stability problems in those areas. The fault contact crosses Highway 101 just south of Rodeo Avenue. The almost vertical highway cut there exposes a jumble of about three faulted masses of sandstone and shale, along with a mass of greestone high on the slope, that are jammed together under the major thrust fault contact with the chert above. The fault dips to the south and strikes east-west. It angles down through Sausalito, crosses San Carlos Avenue between Bridgeway and Bulkley, and continues around the slope to the southeast between those streets. The weak, crushed rock material of the melange below the fault is the source of the weak slopes back of the buildings along of the business district there.

The fault and melange serve as relatively impermeable barriers to ground water that percolates through the highly permeable chert upslope from it, so the melange is kept in an almost permanent state of saturation in this area. It is thus especially vulnerable to landsliding under the influence of added pore pressures during the rainy season. There may be a good ground water source for wells drilled above this fault.

This thrust fault, as well as all other known faults in an immediate Sausalito area, is ancient and not potentially active. It is a result of stresses generated at least several tens of millions of years ago, that were different in detail from those acting to deform the region now. Earthquakes that might cause damage in Sausalito are likely to originate on the San Andreas fault, that passes about 8 miles to the southwest, or the Hayward fault, some 10 miles to the northeast.

As might be expected, the northern part of Sausalito that is underlain by melange suffers many more slope stability problems than the steeper southern part underlain by the Marin Headland sequence of rocks.

The most unstable setting in Sausalito, however, is in developments along the margin of Richardson Bay where fill has been placed on soft bay mud. The long term settlement of such fill is well illustrated adjacent to Bridgeway and across Harbor Drive from the Big G Market parking lot.

Appendix A provides a generalized description and engineering characteristics of major geologic map units in Sausalito which are designated on Figure 1.







GEOLOGY OF SAUSALITO      FIGURE 1      INCLUDES INACTIVE FAULT LINES  
page 4



### III

#### GEOLOGICAL HAZARDS

There are, in general, four broad aspects of seismic risk to the human environment in Marin County:

(1) rupture of the ground surface by displacement along active faults; (2) shaking of the ground caused by passage of seismic waves through the earth; (3) ground failure induced by shaking, such as landslides, liquefaction and subsidence of unstable ground, with associated secondary destructive and disruptive effects, especially fire and disruption of utilities and transportation routes; and (4) tsunamis.

- A. Fault movement causing rupture of the ground surface is the most direct hazard to man-made structures. Ground rupture along fault traces usually only occurs during moderate to great (Richter 5.3 - 7.7+) quakes, with the probability of rupture increasing with magnitude. Even in areas traversed by active faults, ground rupture accounts for only a small percentage of earthquake damage.

The San Andreas is the only proven active fault in Marin County, located approximately 7 miles southwest of Sausalito. Various inactive faults exist in the Marin Headlands with at least one inactive fault line within the City of Sausalito located along Alexander Avenue, parallel to Bridgeway, and toward Highway 101 through the Glen and upper Toyon Terrace. Figure 2 illustrates the approximate location of the inactive fault lines in Sausalito and the Southern Marin Headlands.

- B. Ground shaking from an earthquake causes the most widespread damage to life and property. Shaking contributes to losses not only directly through vibratory damage to manmade structures but also indirectly through triggering of secondary effects such as landslides or other modes of ground failure. Shaking is a result of surface wave movement through the earth's crust, originating from the earthquake epicenter or focus. The ground motion created by these seismic waves is not constant because it is directly related to the type of material and surface topography through which the waves pass. For example, a strong earthquake centered in hard rocks would cause one or more sharp shocks near the epicenter and longer, slower, and probably greater vibrations in loosely-compacted ground.

Marin experienced its greatest ground-shaking damage in the 1906 earthquake, which, unlike the damage resulting directly from ground displacement, was prevalent in eastern Marin as well as along the San Andreas fault zone in the west.

While no ground displacement was reported in eastern Marin in 1906, damage from ground vibrations was common through usually moderate or light. Very widespread chimney and some stone wall collapse was reported, as well as some cases of wall cracking.



San Rafael and Sausalito experienced greatest damage.

The post-1906 moderate Bay Area earthquakes with epicenters elsewhere, were felt in Marin, but with maximum intensities (modified Mercalli) of only V or VI and usually very slight damage. The strongest shaking effects experienced since 1906 would be typified by localized reports of intensities V and VI during the March, 1957 Daly City earthquake (Richter magnitude 5.3). There were, in that shock, a few reported instances of moderate damage in Sausalito, Mill Valley and San Anselmo, but most reports were of just slight damage, or of strongly felt motion and loud sounds frightening residents.

- C. Ground failure includes landsliding, liquefaction, lateral spreading, lurching, differential settlement, and bedrock shattering. All of these involve a displacement of the ground surface due to loss of strength or failure of the underlying materials during earthquake shaking.

Some of these phenomena, particularly landslides and differential settlement, also commonly occur in Marin without a triggering seismic event. Ground failure can occur as a result of earthquakes or other natural faces including heavy rains, erosion, removal of ground cover by fire, or as a result of human actions.

- 1) Landslides and mudslides occur in areas of loosely consolidated material and are often triggered by earthquakes. Water-saturated soils are particularly susceptible to sliding. Heavy rains can cause loose material to slide without earthquakes. Human activities such as watering the soil, disturbance of the natural drainage, or removal of ground holding vegetation by cutting or fire can also cause landslides. Appendix B provides a partial compilation of landslide damage in Sausalito and the Southern Marin Headlands.

Figure 3 illustrates land stability patterns in Sausalito as prepared by the State geologists. The principal factors considered in making the interpretations were:

The broad stability characteristics of geological materials underlying the slopes,

Steepness of slopes, and

the presence of active or intermittent natural forces that tend to cause slope failure.

The maps provide broad evaluations of land stability patterns which have been prepared to aid in general land-use planning. Figure is not intended or suitable for evaluation of individual sites but defines the necessity for further engineering geologic studies of specific construction projects.



## RELATIVE LAND STABILITY

Zone 1 - The most stable category. This zone includes resistant rock that is either exposed or is covered only by shallow colluvium or soil. Also included in this zone are broad, relatively level areas along the tops of ridges or in valley bottoms that may be underlain by material that is quite weak (such as Franciscan melange matrix and alluvium) but occupies a relatively stable position. Some landslide deposits that have moved to relatively stable positions at or beyond the base of the slopes from which they were derived are also included in zone 1.

Zone 2 - Includes narrow ridge and spur crests that are underlain by relatively competent bedrock, but are flanked by steep, potentially unstable slopes.

Zone 3 - Areas where the steepness of the slopes approaches the stability limits of the underlying geological materials. Some landslide deposits that appear to have relatively more stable positions than those classified within zone 4 are also shown here.

Zone 4 - The least stable category. This includes most landslide deposits in upslope areas, whether presently active or not, and slopes on which there is substantial evidence of downslope creep of the surface materials. These areas should be considered naturally unstable, subject to potential failure even in the absence of man's activities and influences. Banks along deeply incised streams are also included in zone 4.

These judgments are interpretive, and apply generally to large areas. Within each area conditions may range locally in detail through all stability categories. Hence, an area designated 1 may locally contain unmapped landslides, and an area designated 4 may locally contain relatively stable sites.

mu - The bay mud, underlying the bay plains, marshlands, and mudflats, has unique and severe stability problems that are not comparable to those of the uplands. Bay mud is unconsolidated, semi-fluid, and highly compressible. Thus it is highly sensitive to loads placed on it, reacting by compaction and lateral flow to cause settlement of the fill -- often differential settlement -- that continues for many decades where the thickness of the mud exceeds about 25 feet.

Landslides involve downslope movement of soil and rock material and include a wide variety of materials and mechanisms ranging from rockfalls to earth flows. Earthquake-induced landslides will occur generally in the same marginally stable areas as landslides induced by other natural energy sources, such as intense rainfall, and may be indistinguishable from them in appearance. The addition of earthquake energy may induce landslides that otherwise might not have occurred until a future rainy season.

Natural slopes, even very steep ones, that are underlain by bedrock and do not have existing significant landslides, can be expected to exhibit a high degree of stability during earthquakes. In places, however, such slopes have been undermined by deep, sometimes vertical cuts for highways, streets, and quarries and some of these will be the scenes of rock falls or other forms of slope failure under the influence of strong earthquake vibrations.

Landslides on hillsides are due to failure of either surface material (soil, colluvium) or bedrock, or both. Landslides in areas of low slope angles can result from liquefaction of subsurface sand layers during earthquakes as in the Alaska earthquake of 1964 and the San Fernando earthquake of 1971.

- 2) Liquefaction occurs when the strength of saturated, loose granular materials (silt, sand, or gravel) is dramatically reduced, such as may occur during an earthquake. The earthquake-induced deformation transforms a stable granular material into a fluidlike state in which the solid particles are virtually in suspension, similar to quicksand. Where the liquefied granular layer is thick and occurs at the surface, structures may gradually sink downward.

Loss of strength in fine-grained cohesive materials is another mechanism of ground or foundation failure and manifests itself in squeezing or "lateral spreading" of soft, saturated clays, such as San Francisco Bay mud. It can result in rapid or gradual loss of strength in the foundation materials and structures can either gradually settle or break up as foundation soils move laterally by flowage.

Loss of resistance also occurs when ground water is raised and frictional resistance is reduced along a potential failure surface and when water or earth masses that buttress masses to prevent downslope movement are removed.

In Marin, the liquefaction-prone geological materials, in order of decreasing susceptibility are artificial fill, bay mud and alluvium. The Bay mud is least stable where lenses of sand are present, although the extent to which clay is present is considered to be one important deterrent to liquefaction since the clay tends to bind the sand together. The alluvium is least stable in deep water-saturated deposits. Areas underlain by hard bedrock at shallow depth are seldom subject to liquefaction.

Liquefaction can occur in the bay fill area on the east side of Bridgeway and should be considered as a factor in review of any development proposal in this area.

Developments on fill placed upon the marshlands and mud flats of San Francisco Bay are susceptible to several severe types of stability problems. Such developments in Marin County have been the cause of great distress to individual citizens and great public expense for many years, primarily because of continuing subsidence of fills that results in intermittent flooding of residential neighborhoods and because of differential settlement of fills in places that disrupts structures, utilities and roadways.

The settlement of fill on bay mud is well exhibited in Sausalito in a portion of the World War II shipyard development adjacent to Bridgeway and Harbor Drive, across Harbor Drive from the Big G Market parking lot. In about 1940, clusters of pilings were driven through fill and underlying bay mud to help support a huge warehouselike subassembly building and a concrete pad that served as its floor. The building has been removed, and the partially collapsed floor displays the amount of settlement that has taken place. Deep pilings are generally relatively stable in bay mud, and the small pads of concrete directly supported on the clusters of pilings now stand about 3 feet above the unsupported concrete surfaces that have settled with the fill. In places large broken portions of slabs are tilted up to their anchors on the pilings.

- D Tsunamis are large ocean waves generated by rapid changes in elevation of large masses of earth and ocean. They are commonly caused by vertical faulting beneath the ocean that rapidly moves a large volume of earth and water. Such rapid movement may generate huge waves of destructive force that can travel thousands of miles. During the 1964 Alaskan earthquake, for example, faulting and crustal warping created tsunamis, or sea waves, tens of feet high that spread more than 1,500 miles from the source area and caused devastation to many coastal communities within their reach. The effects of tsunamis can be greatly amplified by the configuration of the local shoreline and the sea bottom.







AREAS OF TSUNAMI INUNDATION  
AND POSSIBLE SEICHE  
FIGURE 4



Since a precise methodology does not exist to define these effects, it becomes important, through examination of the historic record, to determine if a particular section of the coastline has been subjected to tsunamis and to what elevation they have reached. Figure shows areas of Marin subject to these seismic effects. Seismic seiches, or earthquake-generated standing waves, occur within enclosed or restricted bodies of water (lakes, reservoirs, bays and rivers). They can be likened to the oscillations produced by the sloshing of water in a bowl or a bucket when it is shaken or jarred. Seiche waves generally have a low amplitude (less than a foot), but in shallow areas or where the water is constricted, wave runup can be as great as 20 or 30 feet (McCulloch, 1966). Obviously, such high runups can have a devastating effect on people and property within their reach, dams and reservoirs can be overtopped and large volumes of water released to inundate downstream developments.

Tsunami waves may reach fifty feet in height on unprotected coasts, and one on record (Japan, 1896) killed nearly 30,000 people and destroyed over 10,000 homes. Several people were drowned in Crescent City, California, in 1964 by the tsunami generated by the "Good Friday" Alaska earthquake. Thus far, however, Marin has experienced no such extreme consequences. Tsunamis have been recorded along with tides in San Francisco Bay by the U.S. Coast and Geodetic Survey (a function now of the U.S. Geological Survey). From these data, a 1970 study by R. L. Wiegel states that at least 19 tsunamis were recorded at the Golden Gate tide gage between 1867 and 1969. The highest wave that was recorded there resulted from the March, 1964 Alaskan earthquake. This wave was about 7 1/2 feet in height at Fort Point; amplitude, or greatest elevation of the water above the existing tide at the time was 3 3/4 feet. The height of tsunamis vary from place to place. Comparisons of tsunamis at Fort Point and areas of Marin indicate that wave height will gradually diminish as it moves up the bay, so that at Paradise Cay wave height will be about half that of Fort Point and Lime Point, and beyond Paradise Cay it will be even less. Areas most likely to be inundated are artificially filled marshlands that are still below sea level, unfilled marshlands, and tidal flats.

Wiegel determined that a tsunami having a twenty foot height may arrive at Fort Point once every 200 years.

A 1972 study by Ritter and Dupre shows inundation maps which should be considered during the process of locating suitable sites for critical structures. Tsunamis of a 10 foot height may occur more frequently but probably will have little inundation damage. However, such tsunamis can be disastrous to people along the shoreline, and currents associated with them can damage moored boats and marinas. For example, the 1964 tsunami caused little damage in San Francisco Bay as a result of inundation, but the following damage in Marin County was recorded in the I.J.:

3/25/64 - IJ: Alaskan Earthquake Tsunami damage, \$200,000 to McCarthy and Loch Lomond Marine, S.R.; some boats damaged; one fisherman drowned in tsunami surge; Clipper Yacht Harbor, Sausalito - \$75,000.

#### IV SAFETY HAZARDS

The following discussion analyzes various safety hazards which may result from a seismic-related disaster. While most of these damages resulting from significant earthquakes are effects rather than causes, it is a useful discussion to delineate what may happen as a result of a disaster affecting Sausalito.

- A. Building Damage and Collapse is probably most directly related to human injury as the result of a disaster. The following description of various building types is useful to view response characteristics of structures as a class of hazards in themselves.

Wood Structures. Small wood structures tend to withstand shocks well if the frame is bolted to the foundation. Much of the strength found in these structures depends upon diagonally sheathed wood (or plywood) diaphragms with the edges tied together at the corners. The use of better foundation ties in modern single family dwelling is generally a strengthening element. On the other hand, the trend towards the use of more and larger windows weakens the ability of wood dwellings to resist shocks. The replacement of wood sheathing by plaster or mesh-and-paper backing leads to uncertainties in predicted strength depending on the cement content and nailing of the mesh to the wood studs. Construction of single family homes on slopes and on poor soil will also increase the effect of the possible amount of damage. One-story dwelling units perform better than two-story dwelling units.

##### Small Steel Structures

Steel structures, such as gasoline stations, tend to hold up quite well. These light weight metal structures are usually designed to resist wind forces which exceed earthquake design. Mobile homes normally do not suffer substantial damage; however, the precast concrete pyramid-shaped piers, not normally anchored to the ground, will roll over causing the coach to drop onto the piers which pierce through the floor.

##### Larger Steel Structures

Larger steel buildings, not including tall buildings, may or may not suffer damage depending on the design and strength of the X-bracing rods used in the walls. No significant structural damage was sustained by 30 steel frame high-rise buildings analyzed after the San Fernando earthquake whereas several highrise reinforced concrete buildings suffered structural damage.

##### Reinforced Concrete Structures

Reinforced concrete structures do not hold up as well as steel frame structures where neither is of earthquake resistant design. There seems to be more opportunity for poor construction with concrete than steel. However, as a class, reinforced concrete structures tend to hold up well if the workmanship is good, especially at the points of connection between pours. Good earthquake resistant design for this material should include low story height and a limited number of wall openings.



### Tilt-Up Concrete or Unit Masonry Walls

Most new industrial buildings and many shopping center structures have single story tilt-up concrete or unit masonry walls with a plywood roof which acts as a diaphragm and distributes horizontal and lateral forces. This type of construction showed a 20% loss in the San Fernando earthquake where there was little ground disturbance on site. Comparable data for poured-in-place reinforced concrete walls was not available. When damage to tilt-ups was due directly or indirectly to ground displacement, it was found not to be economically feasible to overcome the problems through construction. However, detailed geologic investigation and careful site planning may avoid the hazardous locations.

Investigations following the San Fernando earthquake revealed that no buildings of this type had totally collapsed in an examination of 61 light industrial buildings, even though the structures were subject to seismic forces greater than the design forces required in the Uniform Building Code. The most critical hazard construction detail is the roof-to-wall tie.

### Masonry

Old, unreinforced masonry and hollow-tile walled buildings have been demonstrated in all California earthquakes to be extremely vulnerable to ground shaking. Even old, reinforced masonry walls are strongly susceptible to damage. The strength of brick construction depends upon the quality of the brick itself, the mortar, grout, and the use of reinforcing steel. The San Fernando earthquake was very destructive to old reinforced masonry buildings, not only in the area of strong shaking but also in adjacent older communities 15 to 25 miles away from the epicenter.

### Non-Structural Elements

In addition to the possibility of damage to the building itself and its occupants, hazards outside the building can cause personal and property injury. Buildings which are close to each other will pound together in a rocking motion during an earthquake, and poor foundation soil will intensify this motion. Non-structural parts of a building such as veneer, window glass, gable walls, unreinforced chimneys, pediments and parapets can become dislodged by such motion and cause injury to persons and damage to property in the vicinity.

- B. Disruption of Lifelines including water, gas, sewer, telephone and electric lines will most likely result from an earthquake affecting Sausalito. The degree of disruption will depend upon the magnitude of the earthquake.

- C. Disruption of Communications routes and/or facilities is possible due to blockage of underpasses, fallen trees, collapsed buildings, or fallen power lines. Sausalito contains many cul-de-sac streets. If obstruction occurs at the entrance to a cul-de-sac, rescue operations will most likely be delayed. The same delays will occur on those through streets within the City where considerable distances occur between intersections. Sausalito may be further isolated as a result of a blockage at the Richardson Bay Bridge approach and the Golden Gate Bridge approach which will make Sausalito an "island" with no access by land to outside facilities.
- D. Fires and/or Explosions are safety hazards that could result from an earthquake. Fires in undeveloped areas would most likely be caused by man, but fires or explosions in developed areas could result from disruption of gas mains or tanks storing flammable materials.

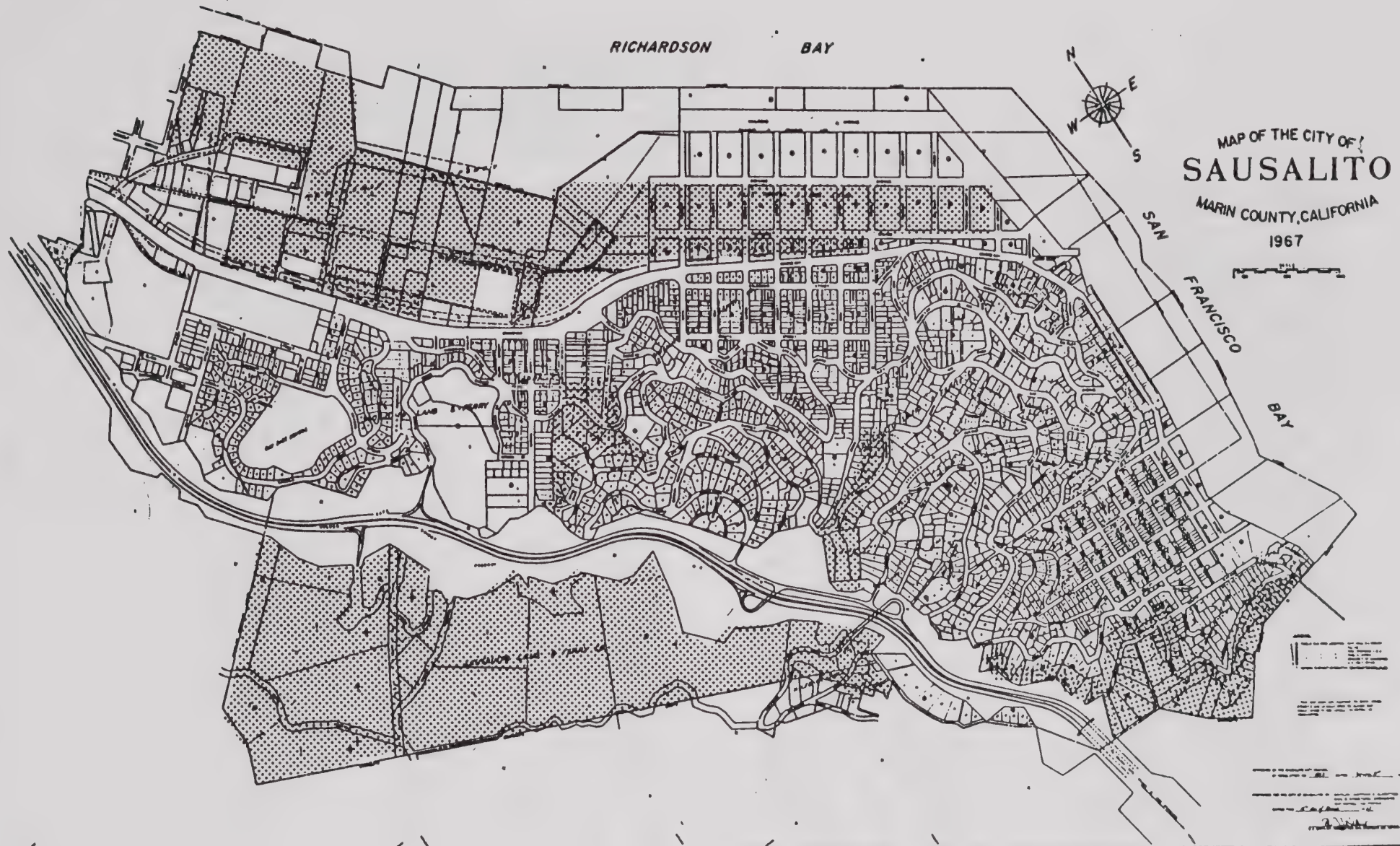
In several parts of the Planning Area conditions exist where a fire could involve a number of buildings, causing severe damage and even loss of life. In the downtown area of Sausalito several buildings, many constructed with common walls, predate city Ordinance No. 827 requiring certain fire protection devices (i.e. sprinkler systems, smoke detection units, etc.). Ordinance 827 becomes effective December 31, 1976 requiring all buildings in a built-up commercial area to have installed an automatic smoke detection system.

Homes located at Wolfback Ridge and the South Ridgeland are exposed to the hazard of fire originating in dry brush. It should be noted, however, that there are no large areas inaccessible to fire vehicles and the Wolfback Ridge area is scraped annually by the Fire Department. In all parts of the Planning Area periodic high winds pose a particular fire-fighting problem.

Response times from the City's fire stations are good. Virtually the entire City can be reached within four and a half minutes from either the Johnson Street station or the Spencer Street station. Water supply for fire fighting is adequate. However, there are water deficient areas within the City limits, specifically: the Wolfback Ridge Area, the Edwards/Marion Area, the Cypress Ridge Area and the area East of Bridgeway. (See Figure ). Sausalito is supplied with water by the Marin Municipal Water District. 2,000,000



# WATER DEFICIENT AREAS IN SAUSALITO\*







gallons of water are in storage within the City and the Fire Department has equipment capable of drafting water from the Bay in emergencies. Sausalito's overall fire defenses are rated class four, in a rating procedure which considers the water supply, the fire department, the fire alarm system, fire prevention programs, the building department, and the condition of structures throughout the city. Sausalito's firemen are trained Emergency Medical Technicians. They are equipped with off-duty receivers for emergency situations. Sausalito's Fire Department has also trained its men in cliff rescue which is very applicable to the Sausalito terrain. Continuation of such programs will provide the City with excellent fire and rescue defenses.

E. FLOODING HAZARDS

Flooding in Sausalito is a significant problem largely confined to the waterfront areas east of Bridgeway. Only one area of the Waterfront repeatedly floods, the land area bounded by Bridgeway and the extension of Coloma Street and EbbTide. Two factors are necessary for flooding to occur in this area: high tide and heavy rainfall (at least 1/2" of steady rain).

Figure 6 illustrates those areas in Sausalito which are subject to a 100 year flood. This means there is a .01 probability of a flood of this magnitude occurring once in a given year. It does not mean that a flood of this magnitude will occur exactly one time in 100 years.

V HAZARD REDUCTION PROGRAM

Paramount to consideration of hazards in Sausalito is the establishment of a disaster preparedness program to deal with emergencies which may occur. Sausalito has an Emergency Plan which outlines basic responsibilities and functions to be carried out by the City government during an emergency. The Plan is for use as a standard guide for the effective and expedient coordination of emergency operations in Sausalito, and establishes the essential connections for emergency assistance from the County of Marin, the State of California and the government of the United States.

The Police and Fire Departments have the major responsibility in an emergency in Sausalito. The Public Works Department has a key role in emergencies such as restoration of services and clearing of debris and transportation routes. All City departments have emergency plans and many have significant roles in providing shelter, welfare services, and communication coordination.

Available emergency resources within the City are: Private medical practitioners, fresh water springs, an ambulance, Fire and Rescue and Plice. For additional Fire, Rescue, Plice and Water Resources beyond Sauslaito's capabilities and for all other medical, health, welfare, mass transportation, petroleum, utilities, radio and TV facilities the City is dependent upon county-wide facilities. The City is dependent upon water and truck transportation for critical supplies.











## ENVIRONMENTAL IMPACT SUPPLEMENT

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This Draft Environmental Impact Report on the Seismic Safety/Safety Element of the Sausalito General Plan has been prepared to fulfill the requirements of the California Environmental Quality Act as implemented by the State EIR Guidelines in effect as of January 1, 1977. The Guidelines provide that the EIR may be consolidated with the General Plan element if the General Plan addresses all the points required to be in an EIR (Section 15148). The Guidelines also authorize the incorporation, by reference, of all or of portions of other documents which are of public record and generally available to the public (Section 15149). The contents of this EIR, whether contained herein or incorporated by reference, will not be as detailed or as specific as that of an EIR on a construction project, but will focus on the secondary effects that can be expected to follow from the adoption of the element (Section 15147).

The Seismic Safety/Safety Element discusses impacts which are generalized in nature and emphasizes long range and cumulative effects possible from implementing the element over time. No significant, direct, short range environmental consequences of adopting the goals and policies of such a general plan element are identified.

### a) The Environmental Impact of Proposed Action

The adoption of the Seismic Safety/Safety Element to the Sausalito General Plan, as a "project or action" will have minimal detrimental impact on the physical environment. The policies, if implemented, would promote a sound basis for environmental planning decisions, and thus serve to mitigate impacts on the environment. The implementation of the policies will have a beneficial impact on the physical environment, especially in the areas of: minimization of impact to flood areas, erosion-prone areas, geologically unstable areas, reduction of potential inducement of landsliding, and slope and structural failure due to seismic activity.

The implementation of the Seismic Safety/Safety Element will have an impact on the social and economic environment, and could require a greater degree of engineering investigations and design to be required prior to development in certain hazardous areas, such as areas subject to liquefaction, or slope instability. The cost is partially repaid to the developer by the knowledge that the building will not be subject to forces that are known to be of devastating proportions. Such development may be less likely to cause loss of life or be destroyed in a seismic event.

The recommended policies of this element are to a great degree, already being carried out by the City through engineering review and Environmental Impact Assessment carried out under CEQA. However, this element would institutionalize some of these practices and add more. The costs would be borne by the consumer in the form of higher costs of acquisition of dwellings or commercial, institutional, or industrial space. The costs would be "out front", that is, be required prior to construction. Costs of long-term maintenance would not be affected. The State's Joint Committee on Seismic Safety estimated that the seismic resistance of most new structures could be increased significantly with less than one to two percent additional construction costs. High occupancy facilities might require 5 to 15 percent increase in construction costs, and 5 to 25 percent increase might be required for vital facilities such as hospitals. Intrinsic hazards, such as a landslide on site or a flooding problem, will always affect the value of undeveloped land. The consumer, or developer, might not pay the same for a piece of land requiring a high level of engineering prior to development as he would for a like site unaffected by such standards.

Value of lands identified as high-risk may reflect the assumption that there would be a highly technical assessment of the site's development by governmental officials. There could be some impact on the value of lands subject to liquefaction, differential settlement, and subsidence in view of both the general awareness of the extent of the application of the Federal Flood Insurance Act and more widespread knowledge of the experience of a number of developments in such areas of the County.

Future costs may be lower to the consumer where development conforms to the policies recommended in the Element: repair of structural damage caused by settlement, land-sliding, etc.; repair of utilities damaged by differential settlement and subsidence; repair of improvements damaged by seismic activity; loss of life; restoration of structures damaged by fire, etc. These costs incurred, or avoided, of course, cannot be quantified at this time.

#### Costs to the City

In the implementation of policies designed to reduce seismic hazards, the greatest expense borne by the City is in abatement and code enforcement. This is not a significant aspect of the City policy recommendations and will not amount to a quantifiable cost to the City.

Although some of the policies may require a greater degree of staff services to insure compliance, many projects will not require quantifiable increases in staff time. As the regulatory processes expand, it is difficult to assign costs to any particular function, but the cumulative effect is of concern to governmental officials. Implementation of the policies in this element does not mandate a greater time factor; once City staff incorporates the implementation procedures in their normal review process, and the public (including practicing engineers) learns of the implementation program, the process can be substantially incorporated into the existing framework of development review.

On the other hand, should the City not do all it reasonably can to protect development from those known environmental hazards, the courts may levy substantial costs to the City in the future should losses of life and property or significant injuries be found to be even partly due to the failure of the City to prudently exercise its powers to protect the health and safety of its citizens.

#### b) Any Adverse Environmental Effects which cannot be Avoided if the Proposal is Implemented

There are no significant adverse environmental effects that would result from the implementation of the Seismic Safety/Safety Element of the Sausalito General Plan. The intent, as described in the introduction and in the Seismic Safety/Safety Element itself, is to minimize impacts to the environment and to property and above all, to human life. Economic impacts are somewhat unavoidable, as discussed in Section (a) above. These impacts, while not quantified, are related to increased requirements for site investigation, for seismic design and construction, or for site modification to avoid non-seismic hazards such as landsliding, flood or fire. These impacts are not considered significant adverse environmental effects, although they will be considered in the application of the standards, and in development review in general.



### c) Mitigation Measures Proposed to Minimize Impact

As discussed in (a) and (b) above, the adoption of the Seismic Safety/Safety Element does not create adverse impacts on the environment. Implementation will result in reductions in environmental impacts resulting from seismic activity, land-sliding, wildfire, flooding, etc. The impacts will be in the modifications of land use in some hazardous areas and in the costs of development. These impacts can be mitigated by added knowledge about appropriate techniques to minimize hazard in construction, by the increased availability of base data regarding environmental hazards, and by the careful determination of the nature of the site investigation required by the particular characteristics of the site itself. The principal impacts which can be mitigated are those described in the Seismic Safety/Safety Element, the impacts which the element proposed to minimize through the programs and procedures recommended in the policies of the element. The hazards defined in the element can be mitigated through the adoption and implementation of policies. Loss of life, property damage, and environmental degradation are the impacts which could be mitigated.

### d) Alternatives to the Proposed Action

There are essentially three alternatives to the proposed activity:

1. adopt stronger policies than those proposed, including the outright prohibition of development in certain areas; or
2. Adopt less stringent policies than those proposed; or
3. Enact no Seismic Safety/Safety Element pertaining to seismic, geologic, flood, fire and other hazards;

The text of the proposed element describes the risks which are inherent in certain geologic formations, landforms, vegetative types, etc. These risks to life and property can be mitigated through the enforcement of certain standards of construction, avoidance of certain areas in construction, vegetation management, and a host of other measures.

Certain of the measures proposed in the form of recommended policy reflect consideration of the alternatives. For example: the policies regarding differential settlement could require that all structures be built on piles, thus virtually eliminating the risk of the building settling differentially; however, while the policies support this method of construction, other methods are not precluded by policy. Instead, standards are established and preliminary site monitoring and treatment is recommended.

The decision-makers who will review the proposed element (Planning Commission and City Council) will determine, through their review of the recommendations, the degree of risk and corresponding policy which is appropriate for the City.

The impact of "no project" is clear: The City would be obligated to respond to each application for development in hazardous areas without a body of policy to substantiate requests for technical information. There would be the need to evaluate each proposal individually and thus negate the value of learned experience in policy implementation, and the exposure of the public to hazards could increase and cause great expense, if not in lives, in property damage. Further, State law mandates the inclusion of a Seismic Safety and Safety Element as part of every jurisdiction's General Plan.

At the other extreme, the complete elimination of risk from the hazards enumerated in this element is not a viable alternative. This would require substantial public investment in detailed engineering studies of a substantial portion of the City. The alternative is also beyond the realm of public policy as it presumes complete accuracy of engineering investigations and presumes a state of the art that would have to increase over time. At this time, there is no way to predict exactly when, where, or with what damaging force an earthquake could occur.

The 3rd alternative is one which would establish less stringent policy. This alternative was considered as each policy was developed, and the policy recommendations were devised to reflect the feasibility of the engineering necessary to meet the policy and the product which would be achieved. The decision makers may elect less stringent policies which reflect their decision to accept a certain level of risk in exchange for less rigorous development standards.

Both the alternatives of less and greater policy are subjective alternatives which have already been assessed in the process of policy development and which will be options for consideration at the adoption stage of the element.

e) The Relationship Between the Short-term Uses of Man's Environment and the Maintenance and Enhancement of Long-term Productivity

The implementation of the Seismic Safety/Safety Element will provide the City with a reasonable level of protection for citizens of the City against personal injury or property damage from the listed environmental hazards, protection of the physical environment from activities that could induce such damage as landsliding and erosion, and avoidance of social and economic disruption that could be caused by serious seismic activity, flooding, or wildfire. The implementation of the policies will provide both long-term and short-term benefits. Beneficial use of the environment will be better maintained, and long-term productivity will be insured by the reduction of hazards and environmental disruption. There may be short-term economic impacts due to the increased public and private costs, with long-term safety benefits as the return on this investment.

f) Any Irreversible Environmental Changes which would be involved in the proposed Action should it be Implemented

There are no measurable environmental changes that would be induced by implementation of the policies (the proposed action) recommended in the Seismic Safety/Safety Element. Certain land use decisions, which will be made on the basis of the implementation of the "action", may be different than would be made without the geotechnical or other data background present in the Element. However, the background technical reports prepared for this element stand as a known body of information whether the element is adopted or not. Changes in land-use decisions cannot be viewed as irreversible environmental changes induced by the "action", inasmuch as the "Action" is not a construction project or some other physical development project. The effect of the project will not be to induce environmental changes but rather to enable decisions based on environmentally sound site planning and land-use decisions.



g) The Growth Inducing Impact of the Proposed Action

Adoption of the Seismic Safety/Safety Element will not induce residential or commercial growth, nor will it expressly limit such development. The element, rather, will possibly alter the type of development or development standards, applicable to certain hazardous areas.

h) Energy Conservation Measures

The adoption of the Seismic Safety/Safety Element will not alter the utilization of energy, either in the form of fossil fuels, hydroelectric, or solar energy. The Element, as a project will affect the review of development proposals, will increase development standards, and modify site plans in land development. While site planning can have an impact on energy consumption (such as the relative energy efficiency of high density development adjacent to public transportation corridors), this element will not significantly affect such considerations in land-use decisions. Utilization of solar energy may, to a very small degree, be affected by the specific concern of avoiding particular site for development (such as avoiding disturbance of a toe of a slope...), but it is no more likely that the concern for environmental hazards will reduce the potential for utilization of solar energy than it would increase the passive utilization of solar energy in a case where the site developer had not specifically been planning on such use.

Utilization of some of the information presented in the element and particularly its background technical reports could save substantial time and energy by avoiding the need to duplicate this work in preparing future development proposals, EIR's and Seismic Safety and Safety Elements.



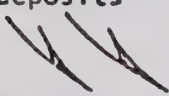
# APPENDIX A

## GENERALIZED DESCRIPTIONS AND SOME ENGINEERING CHARACTERISTICS OF MAJOR GEOLOGIC MAP UNITS IN SAUSALITO

| NAME AND<br>MAP SYMBOL        | LITHOLOGY                                                                                                                                                                                      | SOIL DEVELOPMENT                           | PERMEABILITY                                                                               | SLOPE STABILITY                                                                                                                                                      | EARTHQUAKE<br>STABILITY                                                                                                                                                             |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Artificial<br>fill<br><br>Qaf | Highly variable from place to place. Silt, silt, clay, rock waste, garbage and trash, and dredged bay mud.                                                                                     | None.                                      | Mostly low to very low because of abundance of clay minerals and proximity to water table. | Low because of high clay content and unconsolidated nature. Strongly influenced (potentially weakened) by underlying soft bay mud in fills on former bay marshlands. | Moderate in well engineered fill on stable uplands base to very low in fills on bay mud where lurching movements and differential settlement likely because of soft underlying mud. |
| Bay Mud<br><br>Qm             | Mainly silty carbonaceous clay with very minor amounts of sand. Contains shell fragments and lenses of peat and sand. Very soft and plastic when saturated, shrinks and becomes hard when dry. | None.                                      | Very low, except for lenses of sand which have high permeability.                          | Unstable.                                                                                                                                                            | Low. Subject to lurching and differential settlement, the latter particularly where sand lenses are present within the mud.                                                         |
| Alluvium<br><br>Qa            | Primarily unconsolidated mixtures of clay, silt, sand, and gravel, the proportions varying from place to place. Mostly well compacted.                                                         | Mostly dark organic soils, well developed. | Moderate to low, depending on content of clay minerals and proximity to water table.       | Low. Prone to slumping along undermined stream banks.                                                                                                                | Moderate for shallow deposits, low for deep, water saturated deposits.                                                                                                              |

APPENDIX A (continued)

GENERALIZED DESCRIPTIONS AND SOME ENGINEERING CHARACTERISTICS OF MAJOR GEOLOGIC MAPS UNITS IN SAUSALITO

| NAME AND<br>MAP SYMBOL                                                                                                       | LITHOLOGY                                                                                                                                                                                                                      | SOIL DEVELOPMENT                                                                                                                                                | PERMEABILITY                                                                                                                                                                         | SLOPE STABILITY                                                                                                                                                                                                            | EARTHQUAKE<br>STABILITY                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Debris flow<br>landslide<br>deposits<br>     | Highly variable. Mostly unconsolidated clay-rich soil material containing weathered rock fragments of various sizes.                                                                                                           | Very little on young landslides, moderate to deep on older deposits.                                                                                            | Generally low on clay rich landslide deposits developed on Franciscan schistose rocks and melange. Moderate to high on sand rich deposits derived from Cretaceous sedimentary rocks. | Deposits subject to continuous or intermittent creep are unstable. Stability generally low on other deposits because of internal disruption and the presence of abundant internal slip surfaces.                           | Low to very low, depending on such factors as thickness and degree of saturation at the time of quake, and whether or not vibrations induce renewal of sliding. |
| Block<br>slump<br>landslide<br>deposits<br> | Relatively intact to highly disrupted bedrock material, thus depending on type of bedrock present and degree of fracturing.                                                                                                    | Generally rocky soils.                                                                                                                                          | Generally high.                                                                                                                                                                      | Low to high. Least where block still occupies upslope position, greatest where it has slid to base of slope.                                                                                                               | Low to high. Depending on considerations mentioned under slope stability.                                                                                       |
| Colluvium<br><br>Qc                                                                                                          | Unconsolidated and unsorted soil material and weathered rock fragments. High in sand on slopes underlain by Cretaceous sedimentary rocks (Ks). Rich in clay on slopes underlain by Franciscan schist (KJsch) and melange (fm). | Generally thin rocky or sandy soils on steep slopes, ranging to deep, well developed organic soils on surfaces of low relief, especially at the base of slopes. | Low in clay-rich material, high in sandy colluvium.                                                                                                                                  | Low. Sand-rich deposits on Ks are potentially highly unstable and subject to liquefaction (debris avalanching) when saturated. Clay rich colluvium is the source of most debris flow landslides. Prone to severe gullying. | Moderate on gentle slopes to very low on steep slopes or when saturated.                                                                                        |



APPENDIX A (continued)

GENERALIZED DESCRIPTIONS AND SOME ENGINEERING CHARACTERISTICS OF MAJOR GEOLOGIC MAP UNITS IN SAUSALITO

| NAME AND<br>MAP SYMBOL          | LITHOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | SOIL DEVELOPMENT                                                                                                                                                                                                                                                                                                                                                       | PERMEABILITY                                                                                                                                                                                                                                                                                                         | SLOPE STABILITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | EARTHQUAKE<br>STABILITY                                                                                             |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Franciscan<br>melange<br><br>fm | Matrix of sheared or pulverized rock material containing scattered small to large shear-resistant blocks of various rock types, especially sandstone, greenstone, chert, and serpentine. Melange matrix is largely ground-up sandstone and shale, but crushed debris derived from other rocks, especially greenstone, give it different properties when present. <u>Properties given are for melange matrix.</u> Rock types of large blocks and slabs of sandstone, greenstone, and chert enclosed in melange, which have different characteristics than matrix, are described below under KJs, KJg, and KJch. | Moderate to well-developed brownish gray to black soils form on melange matrix derived entirely from sandstone and shale. Abundant greenstone debris yields soils rich in swelling clays that tend to have a bluish-green subsoil. Alters to soil so easily that exposures of melange matrix are rare on natural slopes or in man-made cuts more than a few years old. | Low to very low. Commonly forms impermeable membrane or envelope around masses of rock enclosed in it. These enclosed rock masses, if sufficiently large and fractured, constitute local ground water reservoirs that are the sources of springs and seeps upslope and near the crests of ridges in melange terrain. | Mostly low. In many places subject to landsliding or to downslope creep of materials at and near the surface, especially where rich in swelling clays. Natural slopes and man-made cuts less than 30 degrees commonly fail. In many places, landsliding originating within zones of melange is the cause (by undermining) of slope failures within stronger rock types overlying the melange. Large unsheared rock masses enclosed within melange matrix may have high stability. | Moderate to high on flat or low-angle slopes. Moderate to low on steep slopes because of tendency to slope failure. |

APPENDIX A (continued)

GENERALIZED DESCRIPTIONS AND SOME ENGINEERING CHARACTERISTICS OF MAJOR GEOLOGIC MAP UNITS IN SAUSALITO

| NAME AND<br>MAP SYMBOL                    | LITHOLOGY                                                                                                                                                                                                                                                                            | SOIL DEVELOPMENT                                                                                                                                                              | PERMEABILITY                                                                                                                                            | SLOPE STABILITY                                                                                                                                                                    | EARTHQUAKE<br>STABILITY |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Serpentine<br><br>sp<br>(fm)              | Mostly sheared, flaky serpentinite material enclosing hard ellipsoidal unshaped serpentinite masses up to a few feet long. Colorful, mostly various shades of green, rarely bluish.                                                                                                  | Mostly crops out prominently with only thin soil between rock exposures. Locally has thick, dark gray to black swelling soils that have wide, deep shrinkage cracks when dry. | Moderate to high because of abundant shearing. Commonly yields springs at contact with underlying melange matrix.                                       | Generally moderate to high where shearing dips into slope. Moderate to low where shearing dips down-slope and where landsliding in underlying melange matrix acts to undermine it. | High.                   |
| Sandstone<br><br>KJs<br>and<br>ss<br>(fm) | Mainly tough, fine- to coarse-grained, thick bedded graywacke-type sandstone. Gray to dark greenish gray at depth, but normally weathered near the surface to brown or pale buff color. Closely fractured in weathered zone. Includes minor shale in places. Sheared in many places. | Weathers easily to clayey sandy soils that are very thin on steep slopes because of high erodability.                                                                         | Has no intergranular permeability; thus permeability determined by joint or fracture density and spacing. Generally low because of clay fill in joints. | High in unshaped sandstone, ranging through moderate to low for sheared rock.                                                                                                      | High.                   |

APPENDIX A (continued)

GENERALIZED DESCRIPTIONS AND SOME ENGINEERING CHARACTERISTICS OF MAJOR GEOLOGIC MAP UNITS IN SAUSALITO

| NAME AND<br>MAP SYMBOL                 | LITHOLOGY                                                                                                                                                                                                                                                                                                                  | SOIL DEVELOPMENT                                                                                                                                                                                                                                      | PERMEABILITY                                                        | SLOPE STABILITY                                                  | EARTHQUAKE<br>STABILITY |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------------|-------------------------|
| Chert<br>KJch<br>and<br>ch<br>(fm)     | Thin beds, one to a few inches thick, of hard, brittle radiolarian chert alternating with thin films or layers of shale. Mostly reddish brown, but pale green to white in places. Closely fractured at right angles to the bedding in most places. Locally contains thick beds or lenses of chert or red or yellow jasper. | Crops out prominently, especially on ridge crests or spurs. Not altered by weathering processes. Downslope movement of small chert fragments yields thin, well-drained, rocky soil on slopes, and thicker rocky colluvium blankets at base of slopes. | High because of thin bedding and abundant closely spaced fractures. | Typically high.                                                  | High.                   |
| Greenstone<br>KJg<br>and<br>gs<br>(fm) | Dull green to greenish gray, medium- to fine-grained volcanic rocks. Mostly basalt flows, agglomerates, or tuffs. Flows commonly exhibit pillow structure. Commonly altered at and near surface to reddish brown crumbly rock, especially where sheared.                                                                   | Weathers easily to yield a dark reddish brown soil that is likely to be deep on gentle slopes, even moderately deep on steep slopes.                                                                                                                  | Low, except where fractured.                                        | Typically high where massive, but moderate to low where sheared. | High.                   |





## APPENDIX B

### DAMAGE RELATED TO GEOLOGIC HAZARDS

This is a partial compilation of landslide damage reported by newspapers during the wet months (November through April) from November 1961 through February 1976. Also included is landslide damage reported during December 1955 (since it was a particularly wet month with much damage).

This list is compiled in two ways. Entries dated prior to 1969 were compiled by first searching the rainfall tables published in Marin Independent Journal for any reported rainfall; then, for those days on which rainfall was reported, usually only the front page was searched for articles relating to landslide damage. The post-1969 data was collected from news clippings retained in the files of Charles W. Jennings, CDMG geologist, and from the authors' personal files.

By no means should it be construed that all landslide-related articles are referenced here, for our search was incomplete. Furthermore, only part of the landslide damage that occurs is reported in the newspapers, probably less than 50 percent.

Although entries in table 1 are arranged by cities, no attempt was made to be certain that the event actually occurred within the city limits--that is, some slides may have occurred just outside the legal city limits.

In an attempt to determine the "reliability" of our slope stability maps, the damage reports were plotted on these maps and tabulated. The results for plates 2B and 2C are presented in table 2. It should be noted that not all those reports referenced here contained sufficient data to locate the site of damage. Further, these landslide reports were not compiled until several months after the slope stability maps were compiled. Where a symbol is located on the boundary between stability zones, the symbol was tabulated in the zone of lower stability.

One important point that should be made is noted in table 2. The slope stability classification does not address itself to the possibility that landslides may originate off the site (uphill) and cause damage in adjacent areas. Thus, for the eleven reports in zone 1, ten were slides which originated upslope, crossing the imaginary stability zone boundary into the most stable zone.

Table 3 is included simply to illustrate the year-to-year effect of landsliding since 1961, with the particularly wet month of December 1955 added for interest. The cost of damage due to landsliding was great, but we were not able to compile the actual cost. Conservative estimates place the landslide damage costs in Marin County at \$,054,930 for the rainy season of 1968-69 (Taylor and Brabb, 1972), and at \$3,064,490 for 1972-73 (Taylor, Nilsen, and Dean, 1975).

In conclusion we find that landslides have had a great impact in Marin County, and that we can predict, with fair accuracy, those slopes which are susceptible to landslide failure.

Key to symbols used in the lists which follow:

- r = report of landslide (no mention of damage)
- RD = road damage (presumably the road had to be cleared or repaired)
- s = structure damaged
- st = structure threatened (as used in the article referenced)
- se = structure evacuated
- SD = structure destroyed (or removed from site)
- o = other damage



LANDSLIDES

"damage"  
symbol

date, source, and summary

Sausalito

st 12/24/55 - IJ: p. 16, 165 Woodward Ave., house threatened.  
RD 11/30/61 - IJ: 100 block of Sausalito Blvd., bank gave  
way, blocked street to 3 1/2 hours.  
RD 1/4/64 - IJ: 2300 block of Bridgeway, closed by slide.  
r(4) 1/21/67 - IJ: Sausalito Police report slides at:  
a) Bulkley Ave. and Reade Ln. b) Woodward Ave.  
and Easterby St. c) Prospect and Cable Aves.  
d) on Sausalito Blvd.  
s 1/23/67 - IJ: 529 Sausalito Blvd., slide into front of  
home, retaining wall collapsed.  
s 2/1/67 - IJ: Bridgeway: Smitherman's Dress Shop closed,  
walls collapsed by slide; 5 other stores also closed.  
1/30/67 - IJ: Tides bookstore, slide pushed in rear wall.  
r 1/20/69 - IJ: Filbert St. near Easterby.  
r 1/20/69 - IJ: Hwy. 101 at Rodeo Ave.  
RD 1/20/69 - IJ: San Carlos at Bridgeway blocked.  
RD 12/20/69 - IJ: one lane at Waldo Tunnel blocked (south-  
bound) also Sausalito Lateral blocked.  
SD 2/13/73 - IJ: Bridgeway - 2 cottages razed due to slide,  
adjacent to Casa Madrona Hotel.

Sausalito - not plotted

r 1/27/67 - IJ: slides reported.

Marin County - unincorporated area

RD 1/27/67 - IJ: Hwy. 101 blocked on Waldo Grade near  
Rodeo Ave.  
RD, o 1/30/67 - IJ: slide on Sausalito Lateral near entrance  
to Ft. Baker and Ft. Barry caused two car accident.





## SUPPLEMENTARY DATA

### II. PROBLEMS AND ISSUES ASSOCIATED WITH NOISE

Sound refers to anything that is or may be perceived by the ear. Noise is any unpleasant and/or annoying sound.

The sound from a unique source decreases with increasing distance. The amount of sound reaching a receiver is dependent upon barriers between the source and the receiver, atmospheric conditions, and the quantity and volume of the sound emitting sources.

The typical community noise environment is comprised of a background noise level and higher noise levels. These higher noise levels are often transportation oriented. Noise from other than transportation sources which could pose problems include: Power tools, air conditioning, sound amplifying equipment, animals, musical instruments, industrial machinery, garden equipment, off the road vehicles, etc. Background noise levels are lower at night. Consequently, the problems generated by higher noise levels from individual sources are more pronounced during nighttime hours, a time when most people desire quiet.

The noise level of our society has increased at a rate of one decibel a year over the past 25 years.<sup>1</sup> The increase has been due in part to the introduction of larger and noisier transportation vehicles and the increase in the number of vehicles. Additionally, the increasing demand of our expanding population for better, more convenient transportation facilities, coupled by inadequate noise control measures or land use controls, has moved the sources of noise closer to the people. The Occupational Safety and Health Act (OSHA) contains standards for regulating excess industrial noise for worker protection.

#### A. The Transportation Noise Problem

Excessive noise from vehicles and aircraft constantly intrude upon our daily lives without any compensation from those responsible for the generation of the undesirable noises. Our society tolerates noise because it is widely believed that the expenditure for quieting engines and tires in their design and construction is less effective than would be the same expenditure for buffering their noise after they have been built.

The County supports State and Federal regulation of vehicle noise. Some communities require more stringent standards appropriate to local sensitivity; however, these standards are often more stringent than regulations can effect. In Marin County it has been found that automobiles are the principal noise source, and therefore, the controlling element in community noise levels.

The increase of traffic noise in Marin County has been caused by increased use of automobiles, roads which permit faster speeds, and elevated freeways. The latter affects the distribution of noise, since heavily used freeways produce a wider impact area.

Generally, vehicular noise does not follow the 24-hour traffic fluctuations. The overall level of noise when measured on a daily basis, lessens during the evening and night-time hours and rises with morning traffic, but remains fairly constant and during and between the commute periods.

1) Senator Mark O. Hatfield, "The Now Sound - Noise" Catalyst, Vol.1 No.3 (Fall, 1970), p.25

B. Effects of Extreme Noise

The effects of severe noise are many and can be placed in four main categories:

- \*Physiological - physical effect
- \*Psychological - emotional effect
- \*Sociological - group effect
- \*Economical - cost effect

1. Physiological

Exposure to sufficient levels of noise for long periods of time can produce temporary or permanent loss of hearing. In general, sound levels must exceed 80 dB(A) for sustained periods before hearing loss occurs. The greater or longer the exposure, the greater the potential for hearing loss.<sup>2</sup> Other physical effects of noise may be rapid heart beat, blood vessel constriction, dilation of the pupils, palling of the skin, headaches, muscle tension, nausea, insomnia, and fatigue. If the noise is of sufficient level, the stomach, esophagus, and intestines may be seized by spasms.<sup>3</sup>

2. Psychological

Noise can interfere with sleep. Excessive exposure to noise may also cause symptoms of anxiety, anger, vertigo, hallucinations, and in extreme cases, has even been blamed for homicidal and suicidal tendencies.<sup>4,5</sup> It has not been scientifically proven, however, that noise is the primary cause of these symptoms.

3. Sociological

There are two alternative means of handling noise intrusions -- reduce the problem by shielding, escaping, or removing the noise source; or adapt to the noise environment. Adaptions to noise intrusions may adversely affect group interrelationships. The intrusion of noise can affect every facet of human existence, from one's family life to one's occupational, educational, and religious activities. The possible adverse effects of an individual's reactions to noise -- physical and emotional maladies -- may be compounded in the group situation. More importantly, though, noise may threaten the ability to communicate and to comprehend. For example, children who live or attend school near sources of excessive noise can be handicapped, not only in their learning process, but also in their socialization process.<sup>6</sup>

- 2 Central Institute for the Deaf, Effects of Noise on People, Washington Environmental Protection Agency, (December 31, 1971), p.18.
- 3 Ibid, p.129
- 4 Ibid., p. 130
- 5 Noise Control Act of 1971 and Amendments--Hearings before the Sub-Committee on the Environment of the Committee of Commerce, Washington: U.S. Government Printing Office, (1971) p.79
- 6 Central Institute for the Deaf, op.cit., p.55

#### 4. Economic

The costs of living with severe noise as well as the costs of measures to reduce the impacts of severe noise intrusion are appreciable and include medical care, loss of efficiency and production, reduction of property value, litigation, abatement measures, and increased vacancies. For example, in order to achieve acceptable interior noise levels in an area experiencing a high frequency and magnitude of aircraft noise, it cost \$12,500 to \$14,450 in 1969 for a 1,530 square foot stucco house.<sup>7</sup> It would cost approximately 500 million dollars to achieve the noise levels proposed by the Federal Aviation Administration for the present commercial aircraft fleet.<sup>8</sup> An eight-foot wall or earth berm adjacent to a freeway costs approximately \$700,000 per mile.

In addition, the costs of increased litigation, sound insulation, acquisition of land and construction for noise mitigation of transportation facilities and vehicles contribute to higher prices for goods and services as well as higher taxation to cover these costs.

#### C. Land Use/Transportation Interrelationship

Traditionally land use and transportation planning have not adequately considered noise impacts. Consequently, developed areas adjacent to major transportation facilities have become impacted by noise. Once a noise problem has been allowed to develop, there are three alternative remedies available: 1) Reduce the noise at the source; 2) Reduce noise by controlling the path of transmission; 3) Reduce the noise impact on the receiver. Source reduction lies outside the immediate control of local planning bodies. The other two potential remedies entail, in some cases, massive disruption of existing land use patterns once the noise problem has become aggravated. The tolerance of land use activities to noise from vehicles is described in Figure 1 on Page . For each land use type, increasing noise levels can be expected to cause interference, annoyance, or hearing damage. The community response is assessed in Figure 2 of Page and is correlated with the recommended steps to avoid or abate the noise. This chart permits the evaluation of alternative noise standards more or less stringent than those recommended in this element.

#### D. Relationship to Airport Vicinity Noise

There is a possible overlap of noise effects in the vicinity of airports due to the combined effects of highway and freeway noise, airport ground facilities noise, and aircraft operational noise. This will require special evaluation of noise sensitive development proposals in the airport vicinity. State standards currently provide for no residential development in areas above the 65 CNEL<sup>9</sup> level due to aircraft noise.

<sup>7</sup>Wyle Laboratories, Home Soundproofing Pilot Project for the Los Angeles Department of Airports, El Segundo: Wyle Laboratories, (March, 1970), p.19.

<sup>8</sup>Noise Pollution, Senate Hearings on S1016, S3342, and HR11021, Washington: U.S. Government Printing Office, (1972), p.523

<sup>9</sup>See glossary for definition of accoustical terminology.



Although no airports exist within or in close proximity to the Sausalito City Limits the heliport is located in close proximity to Sausalito. The status of future use of the heliport is in question at the present time. Future use of the heliport facility will affect noise levels of the City of Sausalito.



FIGURE 1  
LAND USE COMPATIBILITY CHART FOR COMMUNITY NOISE

| LAND USE CATEGORY                                                                                                    | LAND USE AND<br>COMMUNITY RESPONSE* |    |       |      |      |    |    |    |
|----------------------------------------------------------------------------------------------------------------------|-------------------------------------|----|-------|------|------|----|----|----|
|                                                                                                                      | 55                                  | 60 | 65    | 70   | 75   | 80 | 85 | 90 |
| RESIDENTIAL - SINGLE AND TWO FAMILY HOMES,<br>MOBILE HOMES                                                           | A I                                 |    |       |      |      |    |    |    |
|                                                                                                                      |                                     |    | D I E |      |      |    |    |    |
|                                                                                                                      |                                     |    |       | C II |      |    |    |    |
| RESIDENTIAL - MULTIPLE FAMILY APARTMENTS,<br>DORMITORIES, GROUP QUARTERS,<br>ORPHANAGES, RETIREMENT HOMES,<br>ETC.   | A I                                 |    |       |      |      |    |    |    |
|                                                                                                                      |                                     |    |       | D II |      |    |    |    |
|                                                                                                                      |                                     |    |       |      | D II |    |    |    |
| TRANSIENT LODGING - HOTELS, MOTELS                                                                                   | A I                                 |    |       |      |      |    |    |    |
|                                                                                                                      |                                     |    |       | D    |      |    |    |    |
|                                                                                                                      |                                     |    |       |      |      | D  |    |    |
| SCHOOL CLASSROOMS, LIBRARIES, CHURCHES,<br>HOSPITALS, NURSING HOMES, ETC.                                            | A                                   |    |       |      |      |    |    |    |
|                                                                                                                      |                                     |    |       | D    |      |    |    |    |
|                                                                                                                      |                                     |    |       |      |      | C  |    |    |
| AUDITORIUMS, CONCERT HALLS, OUTDOOR<br>AMPHITHEATERS, MUSIC SHELLS                                                   | F                                   |    |       |      |      |    |    |    |
|                                                                                                                      |                                     |    |       |      |      | C  |    |    |
|                                                                                                                      |                                     |    |       |      |      |    |    |    |
| SPORTS ARENA, OUT-OF-DOOR SPECTATOR SPORTS                                                                           | F                                   |    |       |      |      |    |    |    |
|                                                                                                                      |                                     |    |       |      |      | C  |    |    |
|                                                                                                                      |                                     |    |       |      |      |    |    |    |
| PLAYGROUNDS, NEIGHBORHOOD PARKS                                                                                      | A                                   |    |       |      |      |    |    |    |
|                                                                                                                      |                                     |    |       | D    |      |    |    |    |
|                                                                                                                      |                                     |    |       |      |      | C  |    |    |
| GOLF COURSES, RIDING STABLES, WATER-BASED<br>RECREATIONAL AREAS, CEMETERIES                                          | A                                   |    |       |      |      |    |    |    |
|                                                                                                                      |                                     |    |       |      |      | D  |    |    |
|                                                                                                                      |                                     |    |       |      |      |    | C  |    |
| OFFICE BUILDINGS, PERSONAL, BUSINESS AND<br>PROFESSIONAL SERVICES                                                    | A                                   |    |       |      |      |    |    |    |
|                                                                                                                      |                                     |    |       | D    |      |    |    |    |
|                                                                                                                      |                                     |    |       |      | B    |    |    |    |
| COMMERCIAL - RETAIL, MOVIE THEATERS,<br>RESTAURANTS                                                                  | A                                   |    |       |      |      |    |    |    |
|                                                                                                                      |                                     |    |       | D    |      |    |    |    |
|                                                                                                                      |                                     |    |       |      |      | E  |    |    |
| COMMERCIAL - WHOLESALE AND SOME RETAIL,<br>INDUSTRIAL/MANUFACTURING, TRANSPORTATION,<br>COMMUNICATIONS AND UTILITIES | A                                   |    |       |      |      |    |    |    |
|                                                                                                                      |                                     |    |       |      |      | D  |    |    |
|                                                                                                                      |                                     |    |       |      |      |    | E  |    |
| MANUFACTURING - NOISE SENSITIVE<br>COMMUNICATIONS - NOISE SENSITIVE                                                  | A                                   |    |       |      |      |    |    |    |
|                                                                                                                      |                                     |    |       | D    |      |    |    |    |
|                                                                                                                      |                                     |    |       |      |      | E  |    |    |

\* FOR INTERPRETATION, SEE FIGURE 2.



| NOISE COMPATIBILITY INTERPRETATIONS FOR USE WITH FIGURE 1                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GENERAL LAND USE RECOMMENDATIONS                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                       |
| A.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Satisfactory, with no special noise insulation requirements for new construction.                                                                                                                                                                                                                                     |
| B.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | New construction or development should generally be avoided except as possible infill of already developed areas. In such cases, a detailed analysis of noise reduction requirements should be made, and needed noise insulation features should be included in the building design.                                  |
| C.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | New construction or development should not be undertaken.                                                                                                                                                                                                                                                             |
| D.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | New construction or development should not be undertaken unless a detailed analysis of noise reduction requirements is made, and needed noise insulation features included in the design.                                                                                                                             |
| E.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | New development should generally be discouraged. Conventional construction will generally be inadequate, and special noise insulation features must be included. A detailed analysis of noise reduction requirements should be made and needed noise insulation features included in the construction or development. |
| F.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | A detailed analysis of the noise environment, considering noise from all urban and transportation sources should be made, and needed noise insulation features and/or special requirements for the sound reinforcement systems should be included in the basic design.                                                |
| COMMUNITY RESPONSE PREDICTIONS                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                       |
| I.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Some noise complaints may occur, and noise may, occasionally, interfere with some activities.                                                                                                                                                                                                                         |
| II.                                                                                                                                                                                                                                                                                                                                                                                                                                                        | In developed areas, individuals may complain, perhaps vigorously, and group action is possible.                                                                                                                                                                                                                       |
| III.                                                                                                                                                                                                                                                                                                                                                                                                                                                       | In developed areas, repeated vigorous complaints and concerted group action might be expected.                                                                                                                                                                                                                        |
| Land use recommendations are based upon experience and judgmental factors without regard to specific variations in construction (such as air conditioning and building insulation) or in other physical conditions (such as the terrain and the atmosphere). These features and others involving social, economic, and political conditions must be considered in recommending individual use and density construction combinations in specific locations. |                                                                                                                                                                                                                                                                                                                       |
| Community response predictions are generalizations based upon experience resulting from the evolutionary development of various national and International noise exposure units, in particular, the Composite Noise Rating (CNR). For specific locations, considerations must also be given to the background noise levels and the social, economic, and political conditions that exist.                                                                  |                                                                                                                                                                                                                                                                                                                       |
| Source: Bolt, Beranek & Newman, A Background Report on Transportation Noise, Sept. 1974.                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                       |





## V. TECHNICAL PROCEDURES

### A. Recommended Noise Levels Compatible With Residential Areas

A considerable amount of evidence has been compiled by the U.S. Environmental Protection Agency which correlates constant noise levels with speech interference, sleep disturbance, and hearing loss. These have been established after extensive before and after tests of people exposed to different noise situations.

The level identified for the protection of speech communication is 45 dB(A) within the home. Allowing for a typical 15 dB(A) reduction in sound level between outdoors and indoors, this level becomes an outdoor day-night sound level of 60 dB(A) for residential areas. For outdoor voice communication, the outdoor day-night level of 60 dB(A) allows normal conversation at distances up to 2 meters with 95% sentence intelligibility.

Although speech interference has been identified as the primary interference of noise with human activities, and as one of the primary reasons for adverse community reactions to noise and long term annoyance, a margin of safety of 5 dB(A) has been applied to the maximum outdoor level to give adequate weight to other potential adverse effects.

Therefore, the outdoor day-night sound level recommended as desirable for residential areas is a day-night (Ldn)<sup>11</sup> sound level of 55 dB(A). The associated interior sound level within a typical home is 40 dB(A) for daytime periods and 32 dB(A) for nighttime periods.

This latter value is consistent with the limited available sleep criteria. Additionally, these resulting indoor levels are consistent with the background levels inside the home which have been recommended by acoustical consultants as "acceptable" for many years.

The effects associated with an outdoor day-night sound level of 55 dB(A) are:

1. Satisfactory outdoor average sentence intelligibility may be expected for normal voice conversations over distances of up to 3.5 meters;
2. Depending on attitude and other non-acoustical factors, the average expected community reaction is "none" although 1% may complain and 17% indicate "highly annoyed" when responding to social survey questions; and
3. Noise is the least important factor governing attitude towards the area. Identification of a level which is 5 dB(A) higher than 55 dB(A) would significantly increase the severity of the average community reaction, as well as the expected percentage of complaints and annoyance. Identification of a level 5 dB(A) lower than 55 dB(A) would reduce the indoor levels resulting from outdoor noise well below the normal background indoors. It would decrease speech privacy outdoors to marginal distance. Little change in annoyance would be made since at levels below the identified level, individual attitude and life

<sup>11</sup> See glossary for definition of acoustical terms.

style, as well as local conditions, are more important factors in controlling the resulting magnitude of the intruding noise.

In conclusion, a  $L_{dn}$  level of 55 dB(A) is the outdoor noise level in residential areas most compatible with the protection of public health and welfare and is the most compatible with adequate speech communication indoors and outdoors. With respect to complaints and long term annoyance, this level is clearly a maximum satisfying the large majority of the population. However, specific local situations, attitudes, and conditions may make lower levels desirable for some locations. A noise environment not annoying some percentage of the population cannot be identified at the present time by specifying noise level along.<sup>12)</sup>

Figure 3 on Page is based on a more detailed description of standards for land uses, both indoor and outdoor, which appeared in Bolt, Beranek & Newman's "A Background Report on Transportation Noise".

B. Criteria for Evaluating New Developments in Noise Corridors

Streets and highways having or projected to have daily traffic volumes (ADT) greater than 5,000 ADT are considered potential noise corridors. An estimate of distances from the centerline of traffic noises produced 45, 55, 65, 70, 75 and 80 decibels (dBA) has been prepared and is contained in Appendix A.

Recommended standards will apply to new residential uses. For industrial, commercial, and other uses that are more tolerant to noise than residential use, an increase of 5 decibels in the standards shall be considered.

These criteria will not apply to existing development or to proposals having received approvals prior to the adoption of the noise element. See Figure on Page for an illustration of the review criteria. The suggested procedures for noise review for new development proposals are as follows:

1. Submitted residential development proposals are as follows: locations with respect to noise corridors--whether all or any portion of the residential units are to be within the area projected to be a potential noise corridor.
2. Only if the project proposes residential development to be located within the 55 dB(A) noise corridor, will the sponsor be required to engage an acoustical consultant to prepare a site specific noise evaluation to consider noise impact from traffic. This evaluation would consider topography, natural shielding, and other local conditions specific to the site so that a more accurate assessment of potential noise problems and possible mitigation measures can be made.
3. The Review Agency will endeavor to insure that proposed usable outdoors activity areas (communal or private) not be exposed to noise levels from traffic over 60 dB(A) without attempts to mitigate the noise impact. If the project proposes outdoor use areas in locations where potential noise levels would be

12) Ibid., pp. D-56-D-59.

FIGURE 3

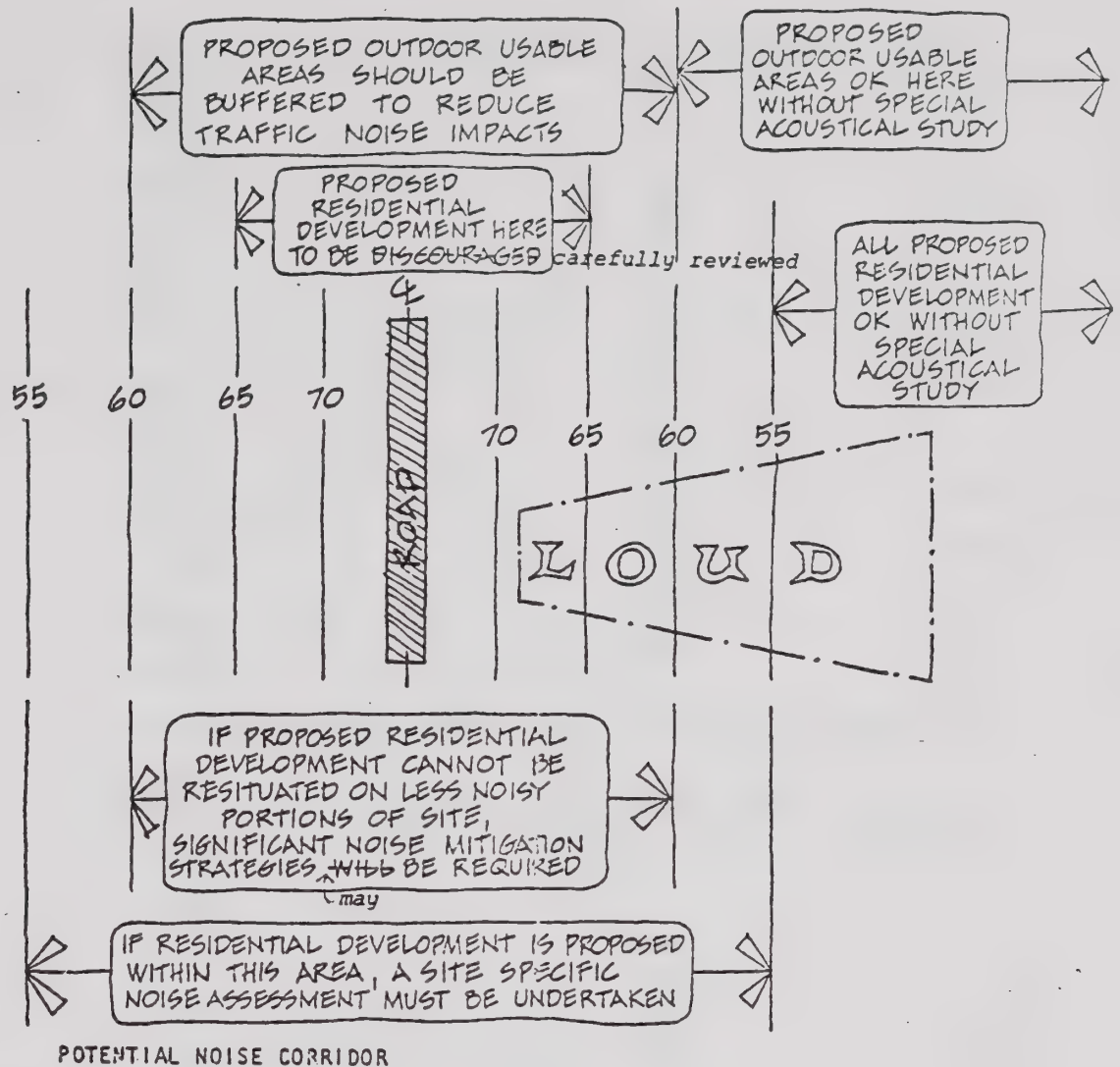
| PROPOSED NOISE STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                         |                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (SUMMARY OF NOISE LEVELS IDENTIFIED AS REQUISITE TO PROTECT PUBLIC HEALTH AND WELFARE WITH AN ADEQUATE MARGIN OF SAFETY)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                         |                                                                                                                                                                       |
| EFFECT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | LEVEL                                                                   | AREA                                                                                                                                                                  |
| Hearing Loss <sup>2)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $L_{eq}(8) \leq 75 \text{ dB}$ 1)<br>$L_{eq}(24) \leq 70 \text{ dB}$ 3) | All areas                                                                                                                                                             |
| Outdoor activity interference and annoyance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | $L_{dn} \leq 55 \text{ dB}$                                             | Outdoors in residential areas and farms and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use. |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | $L_{eq}(24) \leq 55 \text{ dB}$                                         | Outdoor areas where people spend limited amounts of time, such as school yards, playgrounds, etc.                                                                     |
| Indoor activity interference and annoyance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $L_{dn} \leq 45 \text{ dB}$                                             | Indoor residential areas.                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | $L_{eq}(24) \leq 45 \text{ dB}$                                         | Other indoor areas with human activities such as schools, etc.                                                                                                        |
| Source: Bolt, Beranek & Newman, A Background Report on Transportation Noise, Sept., 1974.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                         |                                                                                                                                                                       |
| <p>Notes for Figure 3:</p> <p>1) Detailed discussions of the terms <math>L_{dn}</math> and <math>L_{eq}</math> appear in the EPA "Levels" document. Briefly, <math>L_{eq}(24)</math> represents the sound energy averaged over a 24-hour period while <math>L_{dn}</math> represents the <math>L_{eq}</math> with a 10 dB nighttime weighting. <math>L_{eq}(8)</math> represents the sound energy for the loudest eight hours over a 24-hour period. (See glossary)</p> <p>2) The hearing loss level identified here represents annual averages of the daily level over a period of forty years. (These are energy averages, not to be confused with arithmetic averages.)</p> <p>3) Relationship of an <math>L_{eq}(24)</math> of 70 dB to higher exposure levels.</p> <p>The Environmental Protection Agency has determined that for purposes of hearing conservation alone, a level which is protective of that segment of the population at or below the 96th percentile will protect virtually the entire population. This level has been calculated to be an <math>L_{eq}</math> of 70 dB over a 24 hour day.</p> |                                                                         |                                                                                                                                                                       |





FIGURE 4

SAMPLE APPLICATION OF NOISE CONTOUR DATA  
TO REVIEW RESIDENTIAL DEVELOPMENT PROPOSALS



KEY

- L** = Lot configuration or building placement should inhibit or reduce the effect of noise.
- = LIMIT OR DISCOURAGE RESIDENTIAL USAGE
- = ONLY AFTER STUDY & ANALYSIS WILL RESIDENTIAL OR OUTDOOR USES BE PERMITTED
- U** = USABLE FOR OUTSIDE AREAS WITH NO STUDY REQUIRED, STUDY REQUIRED FOR RESIDENTIAL
- D** = DEVELOPMENT PERMITTED WITH NO STUDY REQUIRED
- 60** = Ldh VALUE NOISE CONTOUR (distance from road & based on ADT Volume on road)
- ROAD** = MUST HAVE 5000 ADT (Developments proposed adjacent to roads with less than 5000 ADT are not subject to this criteria)
- [ ]** = ILLUSTRATIVE VACANT PARCEL PROPOSED FOR RESIDENTIAL DEVELOPMENT



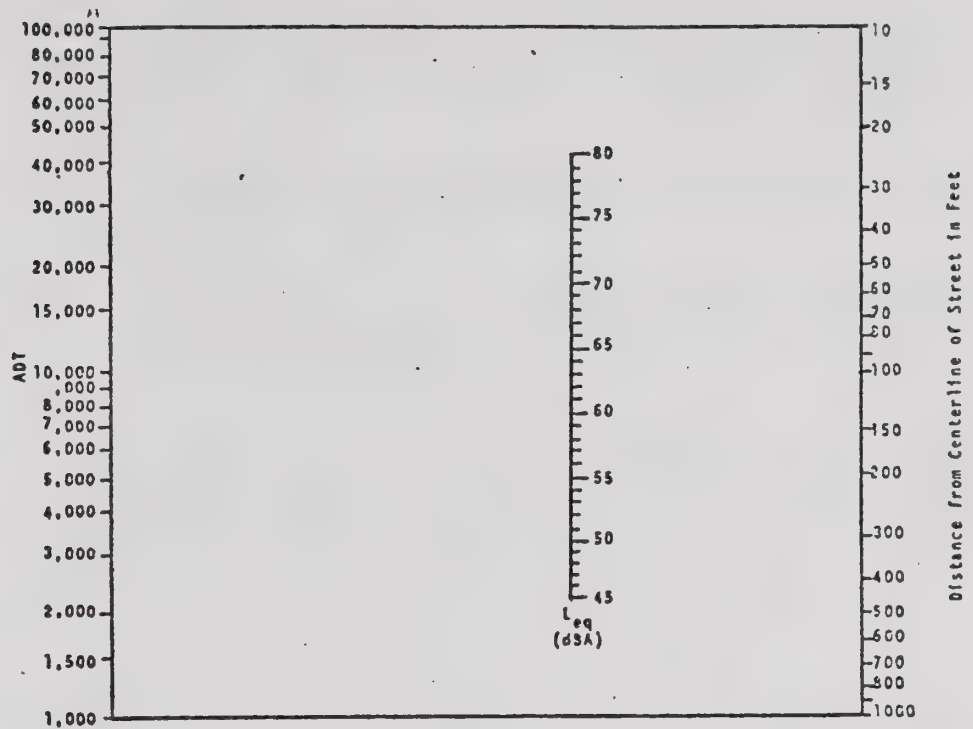
# NOMOGRAPHS FOR DETERMINING THE EQUIVALENT NOISE LEVEL

DUE TO STREET TRAFFIC.

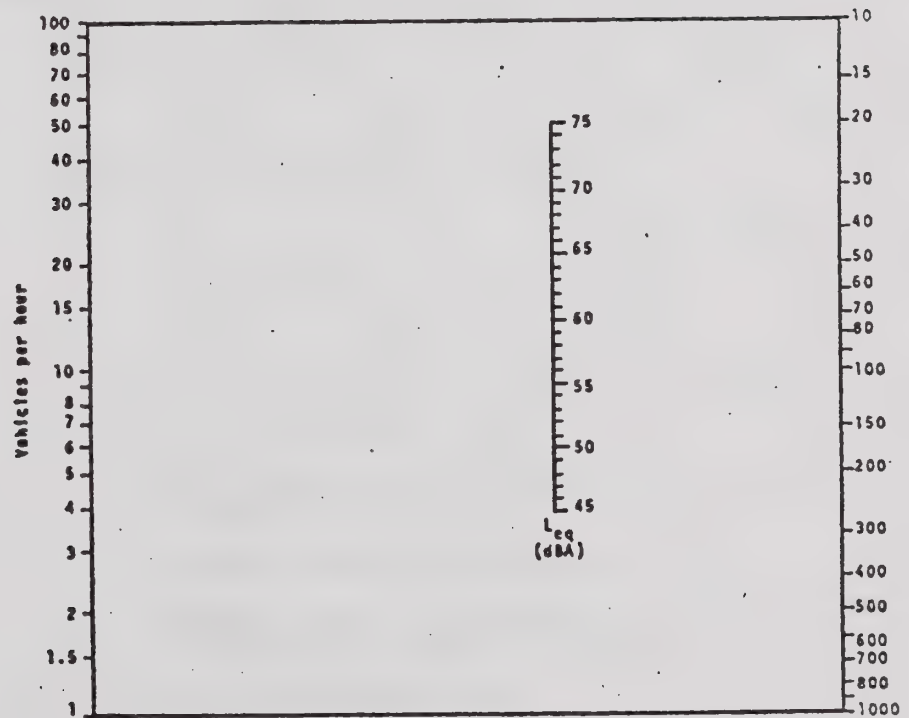
See Appendix A for list of streets and ADT.

See Appendix B for procedures for using nomographs.

## NOMOGRAPH #1 - EXCLUDING GOLDEN GATE TRANSIT VEHICLES



## NOMOGRAPH #2 - FOR GOLDEN GATE TRANSIT VEHICLES ONLY







greater than 60 dB(A), then reasonable mitigation measures may be required, such as: project redesign, construction techniques, or other strategies, where costs of the mitigation are not an unwarranted imposition. See Paragraph D for examples of strategies.

4. In intensive noise zones (areas subject to 65 dB(A) or greater, the placement of building or lot configuration which inhibits or reduces the effect of noise may be required.

The City will work with responsible transportation agencies in an effort to mitigate the harmful effects of noise on affected properties to the extent that funding and resources permit.

These standards would be used as guidelines for both environmental impact review and design review procedures. In addition, the City should consider the desirability of adopting a consistent and comprehensive noise abatement ordinance. Only after adoption of the noise element will consideration be given to preparation of a noise ordinance.

#### C. Coordination and Research Among Jurisdictions

Research about the effects of noise on people is now going on at the Federal level. This knowledge can help improve the public's ability to avoid and abate noise. Legislative requirements for the design and use of noisy products (presently exempt from local controls) offers the potential of reducing noise at its source -- the most effective approach. These research programs need to be followed to determine their effects on noise in the environment and their usefulness for enforcing community standards.

There are numerous Federal noise research programs which are in progress or have been completed. Some of them are included in the following list: <sup>13)</sup>

- . Improvement of noise measurement techniques, data reduction, and analysis (Department of Transportation) (DOT)
- . Jet engine noise and its abatement (DOT)
- . Development of noise-monitoring system for airport environs (DOT)
- . Jet exhaust noise (National Aeronautics and Space Administration) (NASA)
- . V/STOL noise characteristics (DOT)
- . Development of supplemental engine equipment or devices to suppress noise (NASA)
- . Tire acoustics (DOT)
- . Internal combustion engine noise (emphasis on the diesel) (DOT)

13) Environmental Protection Agency, comp., Summary of Noise Programs in the Federal Government, op. cit., (See programs under NASA, DOT, USDA, HEW).

- . Attenuation of noise by vegetation (United States Department of Agriculture (USDA))
- . Effects of noise on humans and wildlife (Health, Education and Welfare and USDA)
- . Acoustical performance of buildings (Housing and Urban Development)

The requirements of the Federal Environmental Protection Act and the California Environmental Quality Act for reporting on noise in the vicinity of new developments provide a practical data source for monitoring the noise environment in Marin. Standardizing the measurement and reporting formal guidelines would be a help in comparing individual projects and working toward a consistent noise data source useful by many jurisdictions.

Transportation operating entities (Golden Gate Bridge, Highway and Transportation District, California Department of Transportation, Northwestern Pacific Railroad, and Greyhound, Inc.) are responsible for measuring noise from their equipment. The collection and interpretation of these data will be helpful to planning agencies in order to assess the contribution these operators make to the noise environment.

#### D. Specific Noise Abatement Strategies

Effective noise abatement measures are unique for each situation. Using the guidelines described below, probable reduction of noise can be approximated. 14)

1. Reduction of noise by increasing distance from traffic routes. Generally the doubling of distance will reduce traffic noise approximately 5 dB(A). This assumes a clear sight path between the roadway and the point of measurement. This effect is due to the spreading of sound energy, thus reducing the intensity of sound at greater distances.
2. Effects of Plantings. Heavy, dense growth of vegetation (generally heavy planting 100 ft. deep between the source and the receiver) will reduce traffic noise by approximately 5 dB(A). No clear sight path should exist, and heavy underbrush may be required to provide attenuation of sound beneath tree branches. Planting should not interfere with safe intersection sightlines and may be an inappropriate strategy in some environmentally sensitive areas due to conflicts of potential fire hazard, need for visibility, inability of soil to retain vegetation, etc.
3. The effect of Barriers. These include walls, hills, earth berms, or other devices which lie between the source and the receiver. The effectiveness of these depends upon several local factors, such as the height of the barrier relative to the sight-line of the sound, distances of the barrier from the source and receiver, reflections of sound which diminish the effectiveness of barriers and combinations of any of these.

14) Bolt, Beranek & Herman, Fundamentals and Abatement of Highway Traffic Noise, Federal Highway Administration, June 1973, pp.1-19.

4. The effects of building mass and shape. No rule of thumb is available to estimate this effect. Reduction will depend upon whether the buildings front 100% of the street, less than 100% fronting, distance between the source and receiver, other buildings between the source and receiver, and height of the buildings.
5. Outdoor to indoor noise reduction. The effects of building construction on noise varies between materials used, distance, weather conditions, and temperature. For schools with large wall areas facing the traffic and large open windows, the effect could be as low as 6-8 dB(A). Residential buildings of wood frame construction will abate noise by as much as 10 dB(A) with the windows open to 15 dB(A) with windows closed. See Appendix D for Title 25, CAC requirements for noise insulation.
6. Effects of rain, wind, and temperature. These should not be regarded as effective abatement measures since their occurrence and, therefore, their effects are highly unpredictable. Caution should be taken with sound measurements as these variables are to some degree always present. Documentation of noise readings should not the climatic conditions existing during the readings.





## VII GLOSSARY

### A-WEIGHTED NETWORK, dB(A):

The sound pressures heard by the human ear vary over a wide range. To make this range easier to study, sound pressures are converted into units called decibels (dB). The range then goes from 0, the threshold of hearing, to beyond 140 dB, at the threshold of pain.

Because the human ear does not react to sound at low frequencies in the same way as sounds at high frequencies, the quality of the sound must also be evaluated. An "A-weighting" network is provided in sound level meters to simulate the human ear. A-weighting sound levels are expressed in units of dB(A).

### ACCOUSTICS:

The science of sound, including the generation, transmission, and effects of sound waves, both audible and inaudible.

### BACKGROUND NOISE:

The total of all noise in a system or situation, independent of the presence of the desired signal. In acoustical measurements, strictly speaking, the term "background noise" means electrical noise in the measurement system.

### COMMUNITY NOISE EQUIVALENT LEVEL, (CNEL):

CNEL is a scale which takes into account all the A-Weighted acoustic energy received at a point, from all noise events causing noise levels above some prescribed value. Weighting factors are included which place greater importance upon noise events occurring during the evening hours (7:00 P.M. to 10:00 P.M.) and even greater importance upon noise events at night (10:00 P.M. to 7:00 A.M.).

### COMPOSITE NOISE RATING, (CNR):

CNR is a scale which takes into account the totality of all aircraft operations at an airport in quantifying the total aircraft noise environment. It was the earliest method for evaluating compatible land use around airports and is still in wide use by the Department of Defense in predicting noise environments around military airfields. Basically, to calculate a CNR value, one begins with a measure of the maximum noise magnitude from each aircraft flyby and adds weighting factors which sum the cumulative effect of all flights. The scale used to describe individual noise events is perceived noise level (in PN dB); the term accounting the number of flights is  $10 \log_{10} N$  (Where N is the number of flight operations), and each night operation counts as much as 16.7 daytime operations. Very approximately, the noise exposure level at a point expressed in the CNR scale will be numerically 35-37 dB higher than if expressed in the CNEL scale.

### DAY-NIGHT AVERAGE-SOUND LEVEL:

The  $L_{dn}$  is a scale equivalent to the CNEL with the exception that the evening period is deleted, and all occurrences during 7:00 P.M. and 10:00 P.M. are included in the daytime period.

### DECIBEL:

The decibel (dB) is a measure, on a logarithmic scale, of the magnitude of a particular quantity (such as sound pressure, sound power, intensity), with respect to a standard reference value (0.0002 microbar for sound pressure and  $10^{-12}$  watt for sound power).

#### LOUDNESS:

- 1) A listener's perception of the intensity of a strongly audible sound or noise;
- 2) The factor  $n$  by which a constant-intensity sound or noise exceeds in the judgment of a listener the loudness of a 1000 Hz tone heard at a sound pressure of 40 dB above threshold.
- 3) The judgment of intensity of a sound by a human being. Loudness depends primarily upon the sound pressure of the stimulus. Over much of the loudness range it takes about a threefold increase in sound pressure (approximately 10 dB) to produce a doubling of loudness. The unit is the sone.

#### NOISE:

The term "noise" is generally defined as "unwanted sound". Certain amounts and kinds of urban noise are inevitable and even desirable; many residents feel that the daily sounds of activities around them are an integral part of the community. But many urban sounds are objectionable, and too much is physically damaging. Noise-defined as injurious urban sounds because it interferes with speech and hearing or is intense enough to damage hearing, should be the intended objects of regulation.

#### STATISTICAL A-WEIGHTED NOISE LEVEL:

This scheme represents the A-weighted noise level, dBA, which is exceeded a percentage of the time over the duration of the sample noise measurement.

VIII

1. Noise Control Act of 1972, Public Law 92-572, 92 Congress, HR 11021, October 27, 1972.

This act regulates the design, manufacture and distribution of products which emit noise. Also included is noise from aircraft and interstate railroad, truck and bus operations. It forbids local and state regulation of products and noise producing sources included in the federal law. Guidelines required by this law have been prepared by the Environmental Protection Agency. (See bibliographic list Nos. 2 & 3).

The federal standards for motor vehicles are: For speeds over 35 m.p.h. vehicular noise may not exceed 90 (A) when measured 50 feet from the center line of moving traffic. For speeds under 35 m.p.h. the maximum is 86 (A) at 50 feet. A noise test while the vehicle is stationary shall not exceed 88 (A) measured at 50 feet. The law bans "pocket retreads" and institutes a muffler inspection. Standards for moving aircraft and airports (mainly testing and maintenance of jets on the ground) are under review by the Federal Aviation Administration. Publication of these standards are expected by the end of 1974. Military aircraft are exempt from federal noise standards and are precluded from control by states or local governments.

2. U.S. Environmental Protection Agency, Public Health and Welfare Criteria for Noise, (July 27, 1973) 550/9-73-002.

This is the first of a two part requirement by Congress to "publish descriptive data on the effect of noise which might be expected from various levels and exposure situations" (PL 92-574-92). This is a technical document dealing with the affects of noise on people. The properties of noise and its attenuation is described in the second document (biblio. No. 3).

This document is available from the Superintendent of Documents, U.S. Printing Office, Stock No. 5500-00103, Catalogue No. EP 1.2N 69/23/973 \$1.95

3. U.S. Environmental Protection Agency, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, (March, 1974) 550/9-74-004.

This is the second part of the noise studies mandated by Congress. While the terms "criteria" or "standards" are scrupulously avoided, it is a very useful guide to the assessment of noise damage and to ways to abate noise. The mandate is to publish "information as to the levels of noise requisite to protect the public health and welfare with an adequate margin of safety." It includes an extensive bibliography of publications on the effects of noise on people, the character of noise and studies of abatement methods. A glossary of terms for common usage is given.

Findings: Measurements of annoyance levels vary widely depending upon duration, frequency, range and magnitude of noise. Noise levels are identified to protect against a) speech interference b) activity interference, c) community reaction and d) long-term damage to hearing.



For relaxed outdoor conversation, at 4 meters distance between speakers, 100% intelligibility of speech is possible at 33 dB(A) and 99% intelligibility is possible at 43 dB(A). For raised voice conversation outdoors, 95% intelligibility is possible at 60 dB(A). Relaxed conversation outdoors is masked at 20 meters with a 20 dB(A) background noise. Normal conversation (slightly above relaxed) is masked when background noise is 54 dB(A) and speakers are 4 meters apart. Raised voice conversation is masked by 65 dB(A) when speakers are 2 meters apart. A maximum distance for speech privacy is 2 meters.

Hearing damage is caused by noise at 4,000 HZ sound frequency measured in cycles per second. Changes in levels of noise less than 5 dB(A) are not significant and cannot usually be detected. Hearing deterioration by people increases their tolerance to noise.

For relaxed conversation in a living room or bedroom, 100% intelligibility of speech is possible at 45 dB(A). Residential indoors under 45 dB(A) will permit speech communication, and when the source is outdoors, 54 dB(A) permits normal speech communication at 4 meters. (This means approximately 40 dB(A) level indoors with windows partly open for ventilation.) Night time levels of 32 dB(A) (accounting for normal decrease in noise levels at night) will protect against sleep interference. A magnitude of 70 dB(A) will protect against damage to hearing. Commercial areas (excluding hotels, motels which are in residential) are identified as 70 dB(A) to protect against hearing loss. Transportation facilities noise maximums to protect against loss is also 70 dB(A).

Hospital areas are identified at 45 dB(A) indoors and 55 dB(A) outdoors which will also adequately protect the indoor levels with windows closed. Educational areas are identified as requiring 45 dB(A) to permit speech communication. Outdoor levels of 55 dB(A) will permit teaching outdoors.

Indoor speech interference (masking) begins at levels of 45 dB(A). Distance is not important unless the space is large or acoustically designed. Outdoor speech masking begins to occur for relaxed conversation levels when speakers are one meter apart and the background noise is above 45 dB(A). A raised voice conversation is necessary with 95% intelligibility when speakers are one meter apart in a noise environment of 72 dB(A). At two meters distance, 95% intelligibility is possible with a raised voice in a 66 dB(A) noise environment. These tolerances protect speech privacy. Sleep is the activity acknowledged as most frequently interfered with by traffic noise.

Also, this document presents noise measurement principles for various applications: Eight hour, twenty-four hour, single event, high frequency (HZ), day-night, etc. This document is available from the Superintendent of Documents, U.S. Print Office, Stock No. 5500-00120, Catalogue No. EP 1.2N 69/26 \$2.10

#### 4. California Environmental Quality Act of 1970 (CEQA)

This law (Public Resources Code Section 21000, et. seq.) requires guidelines to be prepared by the Resources Agency of California for the preparation of Environmental Impact Reports. (Biblio. No. 5)

#### 5. Guidelines for Implementation of The California Environmental Quality Act of 1970 (as amended), Office of The Secretary for Resources, December, 1973

The estimation of noise on proposed projects from other sources and the production of noise by projects are required in the preparation of an Environmental Impact Report.



6. Guidelines for Local General Plans, Office of Intergovernmental Relations, Adopted October 2, 1973

These prescribe the state requirements (Government Code Section 65302) for noise elements in local general plans. The law requires consistency between zoning ordinances and the adopted general plan. This means that zoning ordinances related to noise abatement or prohibition must be reflected in the general plan. The noise element must present the existing and projected noise levels associated with: 1) highways and freeways, 2) ground rapid transit systems and, 3) ground facilities associated with all airports operating under a permit from the State Department of Aeronautics.

The noise element must include:

- A. A statement of policy regarding noise and noise sources.
- B. The desired maximum noise levels by land use categories
- C. Standards and criteria on noise emissions from transportation facilities.
- D. Standards and criteria for compatible noise levels for local "fixed point" noise sources.
- E. A guide to implementation.
- F. An appendix describing methodology of preparation and sources of data.

Local governments must have adopted the Noise Element by September 20, 1974.

7. Bolt, Beranek & Newman, Fundamentals of Abatement of Highway Traffic Noise, U.S. Department of Transportation, Office of Environmental Policy, Federal Highway Administration, June, 1973

Prepared as a textbook for training courses, it includes information on the characteristic and behavior of sound, especially vehicular noise, ways of measuring, prediction of noise and treatments for control. A nomograph is presented and discussed as a quick method of evaluating acoustic barriers. Also included is a review of literature on human response to noise. This latter subject is thoroughly covered in "Public Health and Welfare Criteria for Noise" (2).

8. Gordon, C.G., Galloway, W.J., Kugler, B.A., and Nelson, D.L., Highway Noise -- A design Guide for Highway Engineers. National Cooperative Highway Research Program Report No. 117 (1971)

The research presents information that will allow engineers and architects to predict noise levels expected from a new highway facility. By comparing these predicted noise levels against recommended noise design criteria, the impact of highway-generated noise on the community can be estimated. The noise evaluation technique is presented by means of a series of examples and includes a "cookbook" manual. The recommended noise design criteria are based on task interference considerations of speech and of sleep. It should be noted that these recommended noise design criteria (noise standards) are tentative and subject to change as additional research is undertaken.

Subsequent research as to the effects of noise on people is reviewed in (3) and presented in detail in (2). Adjustments to this work on specific methods for predicting noise are included in (9). All of these procedures and adjustments reflecting recent research are incorporated into the text of the Survey of Noise and Guidelines for Control in Marin County.

9. Kluger, B.A. and Piersol, A.H., Highway Noise -- A Field Evaluation of Traffic Noise Reduction Measures National Cooperative Highway Research Program Report 144, Highway Research Board (1973)

Amends the method of estimating noise alteration from highway sources by elevation, depression and barriers which was presented by the NCHRP Report #117 in 1971. Conclusions: 1) The Design Guide (Report #117) tends to under-predict noise reduction at locations where noise flow must "bend" over barriers such as walls and buildings, 2) tends to over-predict noise reductions at locations distant from the roadside and, 3) tends, in most cases, to under-predict the noise reduction for truck traffic as opposed to automobile traffic.

10. Marin County Planning Department, Procedures and Guidelines for Environmental Impact Review of Private Development Projects, revised March 18, 1975.

These guidelines present the adopted County policy on environmental review procedures. A checklist of environmental review is included.

It is available from the Department of Environmental Services, Marin County Civic Center, San Rafael, California 94903.

11. Noise Element, Marin Countywide Plan.

## VI. ENVIRONMENTAL IMPACT SUPPLEMENT

This report is in conformance with the adopted EIR guidelines of the City of Sausalito and the California Environmental Quality Act.

CEQA guidelines (Section 15148)

The requirements for an EIR on a local general plan or element thereof, will be satisfied by the general plan or element document, and no separate EIR will be required if:

- a. The general plan addresses all the points required to be in an EIR by Article 9 of these guidelines and
- b. The document contains a special section or cover sheet identifying where the general plan document addresses each of the points required.

The CEQA guidelines (Section 15147(b)) also provide that

"An EIR on projects such as the adoption or amendment of... a local general plan should focus on the secondary effects that can be expected to follow from the adoption, but the EIR need not be as detailed as an EIR on the specific construction projects that might follow."

Since several requirements of the State EIR guidelines are already satisfied in the plan document, in order to avoid unnecessary duplication, an environmental impact supplement is hereby combined with the Noise Element to make a single report which satisfies the requirements of State Law. Where the plan element does not adequately address all the points required to be in an EIR by Article 9 it is the intention of this supplement to address these points.

### INTRODUCTION

The Noise Element identifies the problems and issues of transportation noise and proposes that certain goals be established, policies initiated, and programs implemented to bring the problem under control. This Environmental Impact Supplement attempts to analyze the effects of the policies and program recommendations on the environment in this County.

This supplement was prepared in accordance with State and local guidelines to be an information document and a full disclosure of environmental effects. The report does not imply that the Noise Element is entirely beneficial, detrimental, or of no significance.

#### 1. Description of Project

##### A. Location

The Noise Element of the Sausalito General Plan encompasses the entire area of Sausalito. See Appendices A and B for tables showing the areas of the County that will be affected by this plan element.



## B. Description of the Element

The noise element of the Sausalito General Plan deals with the quantification and control of noise generated by transportation facilities in our environment. The plan proposes goals, policies, and recommended action programs to control the impact of transportation noise to an acceptable level. See page \_\_\_\_ of the plan element for goals and policies and page \_\_\_\_ for recommended action program to implement the policies.

## 11. Description of Environmental Setting

The City of Sausalito is located within the Southern Marin Planning Area. Two major noise sources exist within the City Limits - Bridgeway and Highway 101. The Marin County heliport is located in close proximity to the north City limits.

## III. Secondary Impacts of the Noise Element

- A. Because noise is an environmental problem, programs to reduce the impact of noise will have beneficial environmental effects, not negative ones.

There are economic impacts which should be considered because programs to effectively reduce the impact of noise could create equally serious economic effects.

One of the goals of the noise element is to attempt to assign the costs of mitigating noise to those who produce the noise.

1. Should a noise abatement ordinance be adopted that might require additional enforcement staff, the increased cost could be partly offset by collecting special permit fees for noisy activities and events, levying fines for noise violations, and ordering corrective work to be paid for by those generating the noise at the source.
2. In the case of planning, zoning and design review of new development proposals, if conditions are imposed to mitigate noise caused by the project, the costs would probably be passed on to the future occupants of the project. If conditions are imposed to mitigate noise impacts due to public off site noise sources, such as traffic volumes on adjacent streets, cost sharing programs using State or Federal revenue reimbursements to local governments based on gas, tax, motor vehicle registration fees, and other vehicle related revenues could partly pay for the cost of imposing conditions on an applicant, if funds are available for such purposes.
3. The cost of purchasing quieter equipment by local government would be a general public benefit, and this expense would be paid by local taxes raised.
4. The costs of public improvements including road shielding barriers and future roadway routings due to noise from high volume traffic flow should be paid by State and Federal programs because no local area specific assignment of cost can be equitably determined.



## B. The Environmental Impacts of the Noise Element

The policies and programs of the Noise Element are aimed at reducing transportation noise to an acceptable level that does not jeopardize the health and welfare of the citizens of Sausalito. In addition to the secondary impacts described in 111A, some direct physical impacts could result from implementing the noise element. These are:

### 1. Landform

Impact: There may be a need for some slight alterations in landform as a result of the policies and programs of this element. This will be due to the limited construction of earth berms or a combination of earth berms and walls for certain transportation facilities in urbanized areas or where adjacent land use dictates a need for such noise attenuation devices. In rural and most suburban areas where adequate buffer zones can be provided, these devices will not be needed. Technical, environmental, and economic consideration will need to be adequately evaluated on individual projects prior to the implementation of such facilities.

Mitigating Measures: Landscaping installed on earth berms and aesthetically treated walls could enhance some road sections.

### 2. Natural Resources

Discussion: Noise from transportation sources intrudes into every facet of our daily existence; however, some of the County's most important natural resources are the quiet areas where only the sounds of nature can be heard. Approximately 90% of the County is vacant, recreational, agricultural, or other open space. Much of this area provides a place where a reasonable measure of solitude can be enjoyed. There is no significant impact projected to take place upon areas outside the urban corridor by implementing the goals or policies of the noise element. If the noise element is successfully implemented, it will insure that knowledge about potential noise impacts upon presently quiet areas will be considered at the earliest point in the decision making process.

### 3. Social

Impact: Noise may threaten the ability to communicate and to comprehend. For example, children who either live near or who are required to be near, due to school location, sources of excessive noise can be handicapped, not only in their learning process, but also in the process by which they become responsible adults, their socialization process.

Although much of the noise problems can be alleviated through changes in the building code, subdivision, noise, and zoning ordinances, there may, in the future, be some displacement of people around freeways, (the greatest noise problem areas) if this is the only effective way found to solve a serious noise problem.

Mitigating Measures: Generally, if families have to be displaced, they may benefit from improved mental and physical health. These families would receive compensation for their properties and relocation assistance to aid them in the relocation process. There is no proposal as part of the noise element to relocate or displace any families, and this strategy is considered unlikely based on present noise conditions.

#### 4. Urban Development

Impact: The establishment of noise standards in building, subdivision, and zoning ordinances, as recommended in this element, could tend to have a restrictive effect on future urban development in presently noisy areas, particularly of noise sensitive activities. This could increase the pressure to develop areas which are now relatively quiet because of the lower costs of insuring against noise in already quiet zones.

Mitigating Measures: As noise abatement technology progresses and new quieter vehicles replace the older noisier models, compliance with these standards can be accomplished more readily; and if staged over a period of years, will lessen this impact while at the same time achieve a gradual improvement in the quality of life in the urban areas through the reduction of noise. Improved noise conditions could enhance existing areas of urban development thus encouraging stabilization or upgrading of neighborhoods.

#### 5. Safety

Impact: With regard to safety, there could be some problems if transportation vehicles become significantly quieter as a result of Federal standards. Vehicles that are unusually quiet could result in some accidents, since people, particularly the very young and the old, would not hear them as readily.

Mitigating Measures: There are no measurable impacts, but should vehicles become so quiet they pose a safety hazard, more effective visual and information systems to alert the public may be necessary.

### C. Adverse Environmental Impacts Which Cannot be Avoided if the Proposal is Implemented.

1. Possible minor alterations of existing landforms due to construction of landscaped earth berms or walls at various locations where technically feasible.
2. Possible but unlikely future displacement of residents around severe noise areas to create buffer zones.
3. Possible additional costs to enforce the noise control programs and install sound insulation in buildings.
4. Possible minor safety concern because quieter transportation vehicles will not be heard as readily as noisier vehicles.
5. Possible future route selections which may not be as direct if they avoid noise sensitive residential areas.

D. Alternatives to the Proposed Action

The recommended policies of the Noise Element are aimed at reducing transportation noise to an acceptable level that does not jeopardize the health and welfare of the citizens of this County.

In addition to the recommended policies, the following alternatives were considered:

Alternative 1 - Minimum Program

An alternate to the recommended policies is maintenance of the present noise levels associated with the entire spectrum of present and future transportation modes. The implications of this policy with respect to physical factors is that the effect will be practically nil. It has not been fully determined as to whether maintaining the present transportation noise levels would be hazardous. However, indications are that continued exposure to increasing noise levels could potentially have a damaging effect on the physical and mental well-being of the populace. This policy was not selected because it lacked a positive effect on reducing transportation noise.

Alternative 2 - Maximum Program

This alternate would seek to eliminate transportation noise within Sausalito to the degree that residents will always experience a condition of quiet. The implications of this policy are significant and far-reaching, since the following measures might be required to achieve this level of noise reduction.

A noise reduction of this magnitude might require the depressing of some major surface transportation facilities. Since major surface transportation facilities also serve as conveyors of surface runoff, such obstructions could cause flooding problems.

The prohibition of trucks on noisy highways would tend to increase the concentrations of air pollutants as trucks would, in some cases, be required to travel longer routes, thus increasing the total vehicle miles travelled.

The scenic and esthetic qualities of the environment could be increased by landscaped buffer zones and additional landscaping between the source and the receiver. Extensive use of walls, earth berms, and depressed facilities for noise abatement could cause visual pollution even if adequately landscaped.

A substantial number of families could be displaced by the construction of depressed highways, earth berms, and buffer zones around noisy transportation facilities. As a result, housing for low- and middle-income groups might be more difficult to obtain. Displacement of residents could result in the breakup of neighborhoods.

The revenue necessary to support such extensive noise-abatement programs, higher costs of transportation equipment, the possible decrease in tax base (due to forcing some existing development out, and the acquisition of additional land area for buffer zones), could result in an imbalance of revenues and expenditures and cause an increase in the tax rate.



The reduction of noise by the substantial amount implied for this alternate would definitely have a beneficial effect on the physical and mental well-being of the populace.

Increased staff might be required to police and enforce the noise ordinance. Walls, berms, vehicle speed reductions, and designation of diversion truck routes could result in loss of access, traffic delays, and an inadequate transportation system which could impede the maneuverability of fire, police, and emergency vehicles.

This alternate was not selected because of the potential high cost and disruptive effects that could result to the area's economy, mobility, and overall environment if such a program were initiated.

#### Alternative 3 - No Project

State law required that a noise element be included in all general plans for all jurisdictions. As outlined in the description of the element, its express purpose is to serve as a tool for planners, administrators, and legislators to use in abating unwanted noise. It establishes programs to follow and recommends goals and coordinated actions which are designed to bring noise under control in this County.

If a noise element is not adopted, the County would not be in compliance with State law; and noise abatement programs presently proposed by other levels of government may be jeopardized.

For these reasons, this alternative was rejected.

#### Alternative 4 - Reduce Recommended Standards

Omit the 5 dBA margin of safety in the desirable outdoor noise levels for residential settings changing the recommended standard to 60 dbA from the proposed 55 dbA. The effect of this change would be to ease the requirements and possibly the costs for compliance in some areas. By eliminating the 5 db margin of safety, there may be more complaints of noise; however, it is difficult to estimate to what extent this may occur.

This alternative is possible should the costs of carrying out the noise element appear high and no equitable distribution of these costs to those creating the noise at the source is possible. This alternative should be reconsidered after evaluating the experience of about one year at the recommended standard and hardships or cost inequities demonstrate that such a modification is appropriate.

#### E. The Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-term Productivity.

This element will improve the noise environment in the City. The short-term implications of the element will be a relatively small amount of disturbance to landforms, and commitment of energy and materials. The long-term result should be better health and improvement of the quality of life for all residents.



Expenditure of funds to initiate a noise control program will be deferred, and higher short-term costs for certain goods and services when viewed in the context that these expenditures are from a limited source, involve trade-offs between other desired programs, and are probably not recoverable by those who pay for these higher costs.

F. Any Irreversible Environmental Changes Which Would Be Involved in the Proposed Action Should It Be Implemented

Irreversible environmental changes which may be involved in implementing this element are as follows:

1. Minor modification of landforms.
2. Use of natural resources and energy to construct noise attenuation devices.
3. Possible displacement of residents in high noise areas adjacent to certain transportation facilities in order to provide adequate buffer zones would result in disruption of the social processes of these communities.
4. Possible reduction in high density auto activity in sensitive to noise areas.

G. The Growth-Inducing Impact of the Proposed Action

There is no direct growth inducing impact involved in implementing the Noise Element.

H. Energy Conservation Measures

1. Insulation applied to dwelling units to reduce sound transmission may also provide thermal insulation, and some thermal insulation applications may reduce noise transmission. Where the application of one form of insulation is required, it would be possible to conserve energy by insuring that such an insulation application serve dual needs.
2. If windows must be closed in dwellings due to noise interference, air conditioning or mechanical ventilation may become necessary. Efforts to insure a noise reduced environment will enable more use of natural ventilation and particularly with the moderate Sausalito climate, will have decided energy conservation features.
3. The commitment of energy to implement this element would be highest in terms of building berms or walls at presently noisy roads; rerouting future heavy traffic away from residential settings would also result in a high commitment of energy.



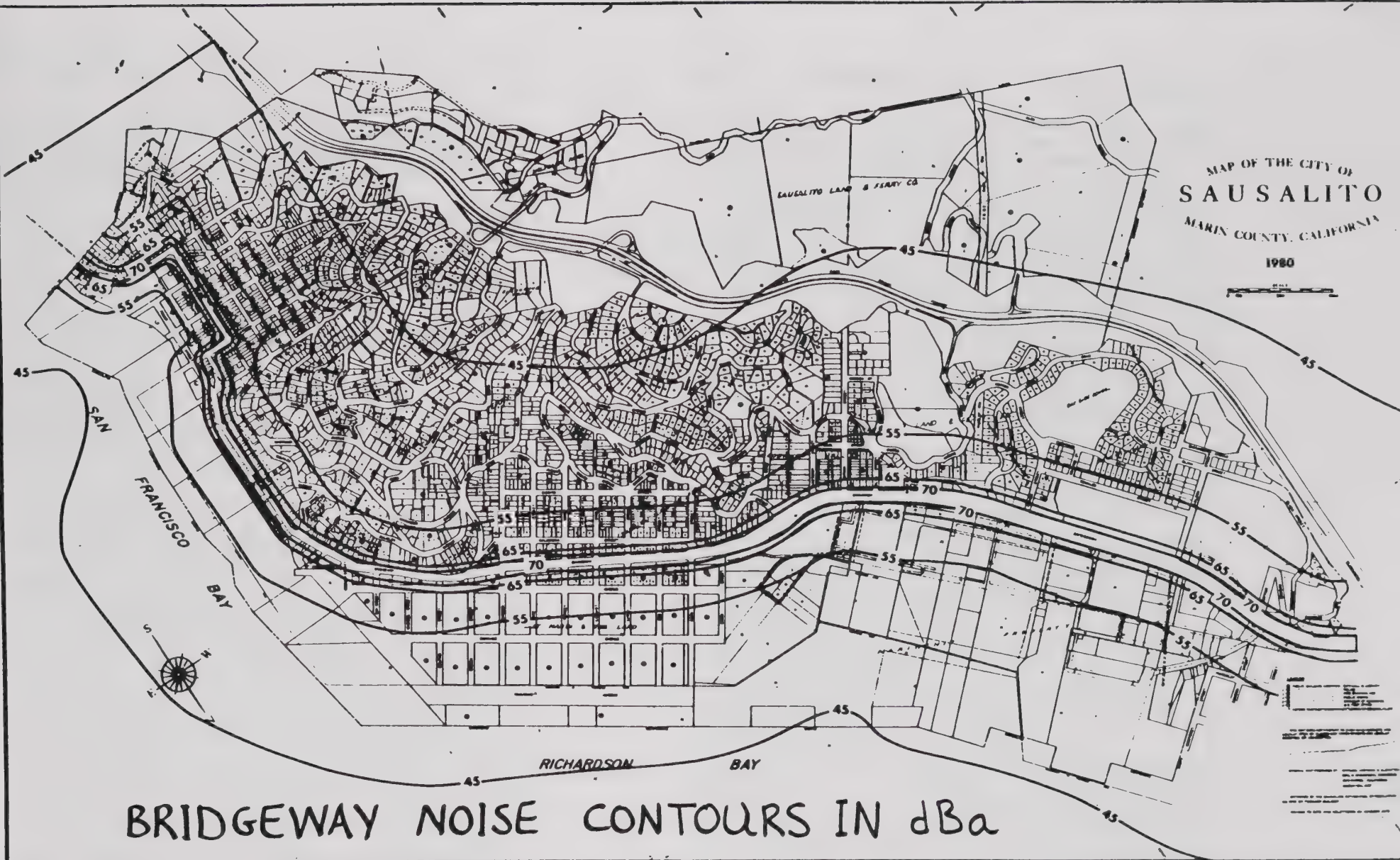
# APPENDIX A

| Link Description           |             |                                        | 1990<br>Average<br>Daily<br>Traffic | Distance from Centerline of Roadbed |     |     |    |    |                                        | CURRENT<br>(Latest Count as of<br>Aug. 1974) Average<br>Daily Traffic | Distance from Centerline of Roadbed |     |     |    |    |    |
|----------------------------|-------------|----------------------------------------|-------------------------------------|-------------------------------------|-----|-----|----|----|----------------------------------------|-----------------------------------------------------------------------|-------------------------------------|-----|-----|----|----|----|
| Begin                      | End         | Noise calculations in $L_{dn} = dB(A)$ |                                     |                                     |     |     |    |    | Noise calculations in $L_{dn} = dB(A)$ |                                                                       |                                     |     |     |    |    |    |
| RICHARDSON BAY COMMUNITIES |             |                                        |                                     | 45                                  | 55  | 65  | 70 | 75 | 80                                     |                                                                       | 45                                  | 55  | 65  | 70 | 75 | 80 |
| Sausalito lateral          | Highway 101 | 2nd Street.                            | 10,000 - 15,000                     | 2500                                | 500 | 125 | 62 | 31 | 15                                     | 10,538                                                                | 1440                                | 360 | 90  | 45 | 22 | 11 |
| Bridgeway Blvd.            | 2nd St.     | Spring St.                             | 15,000 - 20,000                     | 2400                                | 600 | 150 | 75 | 37 | 18                                     | 14,243                                                                | 2000                                | 500 | 125 | 62 | 31 | 15 |
| Bridgeway Blvd.            | Spring St.  | Highway 101                            | 20,000 - 30,000                     | 2800                                | 700 | 175 | 88 | 44 | 22                                     | 23,028                                                                | 2400                                | 600 | 150 | 75 | 39 | 18 |





MAP OF THE CITY OF  
**SAUSALITO**  
MARIN COUNTY, CALIFORNIA  
1980





## APPENDIX C

### TITLE 25 HOUSING LAW AND EARTHQUAKE PROTECTION (Register 74, No. 28-623-74)

6.14.1

#### Article 4. Noise Insulation Standards

1002. Noise Insulation Standards. Noise insulation standards shall be in accordance with the applicable requirements of California Administrative Code, Title 24, Part 6, Division T25, Chapter 1, Subchapter 1, Article 4, Section T25-1002, which reads as follows:

T25-1002. Noise Insulation Standards. (a) Purpose. The purpose of this article is to establish uniform minimum noise insulation performance standards to protect persons within new hotels, motels, apartment houses, and dwellings other than detached single family dwellings from the effects of excessive noise, including but not limited to hearing loss or impairment and persistent interference with speech and sleep.

(b) Application and Scope. The provisions of this article relating to noise insulation performance standards apply to new hotels, motels, apartment houses and dwellings other than detached single-family dwellings.

These regulations shall apply to all applications for building permits made subsequent to the effective date of these regulations.

These regulations shall be effective 6 months after the adoption by the Commission of Housing and Community Development.

(c) Definitions. The following special definitions shall apply to this article as applicable:

(1) Impact Insulation Class (IIC)—A single number rating for ceiling-floor construction that represents the ability of the construction to isolate impact noise, where measurement procedure is based on ASTM E192-73T and as defined in UBC Standard No. 35-2.

(2) Sound Transmission Class (STC)—A single figure rating for floor-ceiling and interior wall partition construction that represents the ability of the construction to isolate airborne noise, where measurement procedure is based on ASTM E90-70 or ASTM E336-71 and as defined in UBC Standard No. 35-1.

(3) Detached Single-Family Dwelling—Any single-family dwelling which is separated from adjacent property lines by 3 feet or more or is separated from adjacent buildings by 6 feet or more.

(d) Sound Transmission Control Between Dwelling Units.

(1) Wall and Floor-Ceiling Assemblies. Wall and floor-ceiling assemblies separating dwelling units or guest rooms from each other and from public space such as interior corridors and service areas shall provide airborne sound insulation for walls, and both airborne and impact sound insulation for floor-ceiling assemblies.

(2) Airborne Sound Insulation. All such separating walls and floor-ceiling assemblies shall provide an airborne sound insulation equal to that required to meet a Sound Transmission Class (STC) of 50 (45 if field tested) as defined in UBC Standard No. 35-1.

Penetrations or openings in construction assemblies for piping, electrical devices, recessed cabinets, bathtubs, soffits, or heating, ventilating or exhaust ducts shall be sealed, lined, insulated or otherwise treated to maintain the required ratings.

6.14.2

### HOUSING AND COMMUNITY DEVELOPMENT TITLE 25 (Register 74, No. 28-623-74)

Dwelling unit entrance doors from interior corridors together with their perimeter seals shall have a Sound Transmission Class (STC) rating of not less than 30 and such perimeter seals shall be maintained in good operating condition.

(3) Impact Sound Insulation. All separating floor-ceiling assemblies between separate units or guest rooms shall provide impact sound insulation equal to that required to meet an Impact Insulation Class (IIC) of 50 (45 if field tested) as defined in UBC Standard No. 35-2. Floor coverings may be included in the assembly to obtain the required rating, and must be retained as a permanent part of the assembly and may only be replaced by other floor covering that provides the same sound insulation required above.

(4) Tested Assemblies. Field or laboratory tested wall or floor-ceiling designs having an STC or IIC of 50 or more as determined by UBC Standard 35-1, 35-2 or 35-3 may be used without any additional field testing when in the opinion of the Building Official the laboratory tested design has not been compromised by flanking paths. Tests may be required by the Building Official when evidence of compromised separations is noted.

(5) Field Testing. Field testing, when required, shall be done under the supervision of a person experienced in the field of acoustical testing and engineering, who shall forward test results to the Building Official showing that the minimum sound insulation requirements stated above have been met.

(6) Airborne Sound Insulation Field Tests. When required, airborne sound insulation shall be determined according to the applicable Field Airborne Sound Transmission Loss Test procedures of U.B.C. Standard No. 35-3. All sound transmitted from the source room to the receiving room shall be considered to be transmitted through the test partition.

(7) Impact Sound Insulation Field Test. When required, impact sound insulation shall be determined in accordance with U.B.C. Standard No. 35-2.

Note: Excerpt from the 1973 U.B.C., Appendix Chapter 35, reproduced with permission of International Conference of Building Officials, 5360 S. Workman Mill Road, Whittier, California

(c) Noise Insulation from Exterior Sources.

(1) Location and Orientation. Consistent with land use standards, residential structures located in noise critical areas, such as proximity to select system of county roads and city streets (as specified in 186.4 of the State of California Streets and Highways Code), railroads, rapid transit lines, airports, or industrial areas shall be designed to prevent the intrusion of exterior noises beyond prescribed levels with all exterior doors and windows in the closed position. Proper design shall include, but shall not be limited to, orientation of the residential structure, set-backs, shielding, and sound insulation of the building itself.

(2) Interior Noise Levels. Interior community noise equivalent levels (CNEL) with windows closed, attributable to exterior sources shall not exceed an annual CNEL of 45 dB in any habitable room.



**TITLE 25 HOUSING LAW AND EARTHQUAKE PROTECTION**  
(Register 74, No. 25—3-31-74)

6.14.3

(3) **Airport Noise Source.** Residential structures to be located within an annual CNEL contour (as defined in Title 4, Subchapter 6, California Administrative Code) of 60 require an acoustical analysis showing that the structure has been designed to limit intruding noise to the prescribed allowable levels. CNEL's shall be as determined by the local jurisdiction in accordance with its local general plan.

(4) **Vehicular and Industrial Noise Sources.** Residential buildings or structures to be located within annual exterior community noise equivalent level contours of 60 db adjacent to the select system of county roads and city streets (as specified in Section 156.4 of the State of California Streets and Highways Code), freeways, state highways, railroads, rapid-transit lines and industrial noise sources shall require an acoustical analysis showing that the proposed building has been designed to limit intruding noise to the allowable interior noise levels prescribed in Section T25-1092(e) (2).

**Exception:** Railroads, where there are no nighttime (10:00 p.m. to 7:00 a.m.) railway operations and where daytime (7:00 a.m. to 10:00 p.m.) railway operations do not exceed four (4) per day.

(f) **Compliance.**

(1) Evidence of compliance shall consist of submittal of an acoustical analysis report, prepared under the supervision of a person experienced in the field of acoustical engineering, with the application for building permit. The report shall show topographical relationship of noise sources and dwelling site, identification of noise sources and their characteristics, predicted noise spectra at the exterior of the proposed dwelling structure considering present and future land use, basis for the prediction (measured or estimated from published data), noise attenuation measures to be applied, and an analysis of the noise insulation effectiveness of the proposed construction showing that the prescribed interior noise level requirements are met. If interior allowable noise levels are met by requiring that windows be unopenable or closed, the design for the structure must also specify the means that will be employed to provide ventilation, and cooling if necessary, to provide a habitable interior environment.

(2) **Field Testing.** Only when inspection indicates that the construction is not in accordance with the approved design, field testing may be required. Interior noise measurements shall be taken under conditions of typical maximum exterior noise levels within legal limits. A test report showing compliance or noncompliance with prescribed interior allowable levels shall be submitted to the Building Official.

6.14.4

**HOUSING AND COMMUNITY DEVELOPMENT TITLE 25**  
(Register 74, No. 25—3-31-74)

Where a complaint as to noncompliance with this article requires a field test to resolve the complaint, the complainant shall post a bond or adequate funds in escrow for the cost of said testing. Such costs shall be chargeable to the complainant when such field tests show that compliance with these regulations is in fact present. If such tests show noncompliance, then such testing costs shall be borne by the owner or builder.

**NOTE:** Authority cited for Article 4 (Section 1092): Sections 17910 through 17925, 18500 through 18915, 19670 through 19977 and 37039, Health and Safety Code.

**History:** 1. New Article 4 (Section 1092) filed 3-22-74 as an emergency; designated effective 8-22-74 (Register 74, No. 12).  
2. Certificate of Compliance filed 6-11-74 (Register 74, No. 24).  
3. Amendment filed 6-26-74 as procedural and organizational; effective upon filing (Register 74, No. 26).  
4. Amendment of subsection (e) (4) filed 8-27-74 as an emergency; effective upon filing (Register 74, No. 33).



## SUPPLEMENT TO THE GENERAL PLAN HOUSING ELEMENT

Most of the data in this Supplement to the General Plan Housing Element are derived from the 1970 Census. While portions of the data items were based on a 100% sample of all households, other items of interest were collected on anywhere from a 5% to 20% sample. In addition, more data were available for the Sausalito area on a census tract basis than a Citywide basis, and therefore census tract information was used exclusively for comparability. Only slight variations, however, exist between the census tract and City boundaries.

### PART I

#### SOCIAL CONCERNS

##### Household Composition and Age Structure of the Population

Dramatic age shifts in the population of Sausalito have taken place since 1960. In particular there was a decrease in the number of children under 15, while the population rose by almost 1000 in the period 1960 to 1970.

#### SAUSALITO

|          | <u>1960</u>    |      | <u>1970</u>    |      |
|----------|----------------|------|----------------|------|
|          | No. of persons | %    | No. of persons | %    |
| Under 15 | 912            | 16.3 | 734            | 11.2 |
| 15 - 19  | 206            | 3.7  | 224            | 3.4  |
| 20 - 34  | 1429           | 25.4 | 2658           | 40.5 |
| 35 - 55  | 1906           | 34.0 | 1726           | 26.3 |
| 55 - 64  | 604            | 10.8 | 637            | 9.6  |
| 65 +     | 551            | 9.8  | 592            | 9.0  |
| TOTAL:   | 5608           | 100  | 6571           | 100  |

Similarly, the number of persons in the 35 - 55 year old category the age group most likely to include larger families has decreased. The number of persons in the 20 - 34 year old category, however, increased 86% between 1960 and 1970. This age group now comprises 40% of Sausalito's population. Only a slight decrease occurred in the percentage of Sausalito's population over 55.

From the above figures, one can infer a decrease in the percentage of all households which share a family relationship, as both the typical parental and child age categories have significantly declined. In addition, this information would account for the

decline in the median number of persons per household from 2.0 to 1.8 between 1960 and 1970. This information places into perspective the apparent demand for, and the resultant supply of small second units, some illegal.

Sausalito differed in population age structure in comparison to Marin County in both 1960 and 1970. In general the population of Sausalito was younger than that of the County, although the number of children was quite low by comparison.

| Population -- | 1960      |              | 1970      |              |
|---------------|-----------|--------------|-----------|--------------|
|               | Sausalito | Marin County | Sausalito | Marin County |
| Under 15      | 16.3%     | 30.7%        | 11.2%     | 26.6%        |
| 15-19         | 3.7       | 5.9          | 3.4       | 8.2          |
| 20-34         | 25.4      | 20.6         | 40.5      | 22.6         |
| 35-55         | 34.0      | 28.7         | 26.3      | 27.2         |
| 55-64         | 10.8      | 7.2          | 9.6       | 8.2          |
| 65 +          | 9.8       | 6.9          | 9.0       | 7.3          |

As the above figures show, Sausalito's population has had 15% fewer children under 15 years of age than the County since 1960. In other words, the data suggest that Marin County in general has both more families as well as fewer young adults (20-34) and older persons (55 years and up). Within the City of Sausalito there has been a dramatic increase in the percentages of persons 20-34 as compared to the percentage of persons 35 - 55.

#### SAUSALITO

| Population | 1960% | 1970% Change |
|------------|-------|--------------|
| 20-34 yrs. | 25.4  | 40.5 15.1    |
| 35-55 yrs. | 34.0  | 26.3 -7.7    |

The 20-34 year age group increased a full 15% in only 10 years, while those persons 35-55 decreased as a portion of the population by almost 8%. In actual numbers the 35-55 year age group declined by 412 despite a City population increase of 1000 in the same period. In the County, only 22.5% of all households were occupied by single individuals in 1970. This is 18% less than Sausalito in 1960 and 32% less than Sausalito in 1970.

Only 45% of all households in Sausalito in 1970 were composed of related individuals. Of this number only 1/3 or 490 families had children under 18. By comparison, 75% of all households in the County are reported as consisting of related individuals and 56% of these households had children under 18 - quite a difference from local figures.

### Population Mobility

Not surprisingly, Sausalito had a highly mobile population between 1960 and 1970. According to the latest Census 50% of all dwelling units in 1970 were occupied by persons who had lived there 2 years or less. Another 20% had lived in Sausalito less than 5 years. In fact, only 16% of the households were occupied by persons who were residents of Sausalito prior to 1960. This high rate of mobility was apparent not only from 1960 to 1970, but also between 1950 and 1960, when 69.3% of the households were occupied by residents of fewer than five years. County mobility rates, while high, were somewhat less than those of Sausalito.

High mobility rates, such as those evidenced in Sausalito, are characteristic of predominantly renter communities. The fact that 60% of Sausalito housing units are renter-occupied substantiates this correlation.

### Income

Sausalito is one of the most affluent communities in the Bay Area. Only 16 cities rank ahead of Sausalito in median income per family. While median family income increased from \$8910 in 1960 to \$1474 in 1970, an inflation factor of 5% a year would boost the 1960 figure to \$13365 by 1970. Therefore, the significant portion of the increase is due to inflation rather than a rise in real income.

| SAUSALITO      |           |           |
|----------------|-----------|-----------|
| Income:        | % in 1960 | % in 1970 |
| Less \$3,000   | 10.1      | 8.9       |
| 3,000 - 9,999  | 50.8      | 20.2      |
| 10,000 -14,999 | 22.1      | 22.0      |
| 15,000 -24,999 | 11.4      | 30.9      |
| 25,000 -49,000 | 5.6       | 14.00     |
| 50,000 or more |           | 4.0       |

The above figures also show that in 1970 almost 9% of Sausalito families had an income of less than \$3,000, a higher percentage than in either Marin County or the Bay Area. 8% of this group (117 families) were considered below the poverty level. Only 6 families had heads of households over 65 years of age.

The median income of unrelated individuals was little more than half that of families in 1970 at \$7541 per year. Although this is a higher income figure per person than in the typical sized family, 13.4% of unrelated individuals were considered below the poverty level compared to only 8% of all families. 115 of the 352 individuals in the poverty category or 32.7% were 65 years and over in 1970.



Expressed in terms of persons rather than families or unrelated individuals, a total of 658 people or 10% of the population of Sausalito was considered by the Census to be below the poverty level. The poverty level is established by the federal government and updated yearly. It reflects both family size and number of children per household as well as the differences between urban and rural environments. Basically, the poverty level allows for income 3 times the "Economy Food Plan," established as a guideline by the federal government. College students and military personnel living in barracks are excluded from the definition of those persons who are below the poverty level. Of this number 113 were children under 18 years. Another 126 were over 65 years of age, only 11% of whom received Social Security.

In Marin County only 6.6% of all persons were considered to be below the poverty level, 3.4% less than in Sausalito. To summarize then, despite Sausalito's relatively high median income both for families and for unrelated individuals, the City had a higher proportion of persons below the poverty level; particularly in the 65 years or older category.

#### Summary

The preceding few pages have demonstrated both an absolute decline in the number of families and the number of children living in Sausalito despite a population increase of almost 1000 during the 10 year period, 1960 to 1970. In fact, almost 55% of all households were populated by unrelated individuals. Those persons over 65 years of age accounted for 9% of Sausalito residents, a higher figure than in the County. It would appear, therefore, that there is a need to encourage the maintenance of existing housing as well as the construction of new housing which would appropriately meet the needs of a diverse population, particularly families and the elderly.

In terms of income, on the surface it appeared that Sausalito was one of the more affluent communities in the Bay Area in 1970. However, further investigation showed more than 10% of all Sausalito residents to have been below the poverty level. Need was particularly apparent in the over 65 age group. It would seem, then, that any planning effort directed at low or moderate income housing should include consideration of the existing and future needs of the City's poverty population.

An additional consideration is that while Sausalito ranks 17th in income in the Bay Area, it ranks 9th in the value of single family houses and 5th in the cost of rental units of all incorporated places in the entire Bay Area. In other words Sausalito residents on the average must be paying a higher percentage of income on the average for housing than in most other Bay Area communities. The extent to which this is true is evident from a comparison of Sausalito and Marin County, where rents are higher than other counties.

| 1970 percentage of households paying<br>more than 25% of income for rent by<br>category | Sausalito | Marin County |
|-----------------------------------------------------------------------------------------|-----------|--------------|
| Income less than \$5,000                                                                | 88%       | 83%          |
| \$5,000 - 9,999                                                                         | 70%       | 53%          |
| 10,000 - 14,999                                                                         | 29%       | 19%          |
| 15,000 or more                                                                          | 4%        | 5%           |

These figures show Sausalito residents were paying excessive amounts of rent in higher proportions than in the County



HOUSING CHARACTERISTICSNumber of Units & Rate of Growth

In 1950 the United States Census reported 1948 dwelling units in the City of Sausalito. By 1960 this number had grown to 2679 and by 1970 to 3423. Dwelling unit counts by the County during the same periods estimated 2675 in 1960 and 3336 in 1970. These counts all include houseboats and residences east of Highway 101 to the Heliport.

The growth in the 10 year period 1960 - 1970 was thus 744 or 661, (depending on whether one uses the U.S. or County figures, respectively.) During the last 10 years, there has been a large fluctuation in the number of dwelling units built annually:

| NEW DWELLING UNITS FOR<br>WHICH BUILDING PERMITS HAVE BEEN ISSUED |      |      |      |      |      |       |  |  |  |
|-------------------------------------------------------------------|------|------|------|------|------|-------|--|--|--|
|                                                                   | 1965 | 1966 | 1967 | 1968 | 1969 | TOTAL |  |  |  |
| Single Family Units                                               | 7    | 11   | 11   | 12   | 19   | 60    |  |  |  |
| Duplex units                                                      | 14   | 12   | 20   | 18   | 18   | 82    |  |  |  |
| Multi-Family units (3+)                                           | 4    |      |      | 4    | 6    | 14    |  |  |  |
| TOTAL:                                                            | 25   | 23   | 31   | 34   | 43   | 156   |  |  |  |

|                         | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | TOTAL |
|-------------------------|------|------|------|------|------|------|------|------|-------|
| Single Family units     | 14   | 16   | 20   | 15   | 17   | 5    | 5    | 9    | 101   |
| Duplex units            | 26   | 32   | 38   | 72   | 10   | 4    | 8    | 6    | 196   |
| Multi-Family units (3+) | 5    | 0    | 25   | 3    | 8    | 4    | 0    | 47   | 92    |
| Additional Units        | 3    | 4    | 1    | 4    | 2    | 2    | 3    | 0    | 19    |
| Sub Total               | 48   | 52   | 84   | 94   | 37   | 15   | 16   | 62   | 408   |
| Units Eliminated        | 0    | 2    | 2    | 4    | 11   | 0    | 0    | 2    | 21    |
| TOTAL:                  | 48   | 50   | 82   | 90   | 26   | 15   | 16   | 60   | 387   |

Between 1960 to 1964, 500 building permits were issued, 408 of these between 1960 and 1962. The large number of units constructed in the early 1960's were primarily apartments. The high number of permits issued in 1972 and 1973 was a result of construction on the Marina Vista subdivision in the Nevada Street area of the City. Units approved since 1970 escalated the trend towards multiple-unit structures: In Sausalito 71% of new units were either in duplex or multi-family buildings, while only 25% were single family dwellings. Only 19 units or 5% of new housing units since 1970 were units added to existing structures. The relatively high number of multi-family units for which permits were issued in 1977 is attributable to the construction of the Whisky Springs condominium development.

The number of residential building permits issued per year for the last 20 years has varied from a low of 9 dwelling units to a high of 292 dwelling units. The average number issued per year was as follows: 73 from 1956 to 1960, 100 from 1961 to 1965, 36 from 1965 to 1970 and 56 from 1971 to 1975, and 39 in the two year period 1976 - 77.

Development Potential

Based on a count of existing dwelling units and calculation of an allowable number of dwelling units for each individual parcel, an estimate of the residential development potential of each planning area is displayed on Table II.

### Undeveloped Lands

Approximately 200 Acres of land within the City of Sausalito have been designated for acquisition by the Federal Government for inclusion within the GGNRA. This area includes portions of the South Ridgeland, extending along most of the southern boundary of the City and Wolfback Ridge, extending along the entire western boundary of the City. These lands have not been included in calculations of development potential because of the planned purchase by the Federal Government.

15.5 acres of land known as Cypress Ridge are a part of the City open space and therefore have no residential potential.

Remaining undeveloped or partially developed residential lands over 3 acres include:

1. Whiskey Springs: 203 units approved for 13 acres, 47 of which are under construction in 1977-78.
2. Flen Grove: 12 units approved for 3.3 Acres.
3. Toyon Terrace: 14 single family lots.

To reach the theoretical development potential of the city, 1004 dwelling units could be added to the 1975 base, of which 229 would be on vacant land over 3 acres in area.

Since 1970, an average of 51 dwelling units have been constructed annually. This average growth rate is within the growth rate targets recommended by the Marin County Countywide Plan and implemented by the Richardson Bay Residential Development Review Board of which Sausalito is a member. Assuming this rate were to continue, all vacant residentially zoned land would be built up in fourteen years; in twenty years, the City would be developed to its full zoned capacity.

In 1970 the United States Census reported Sausalito to be a City of 3423 dwelling units. This was an increase of over 25% from 1960, when only 2679 units existed. However, this documentation of growth was not surprising as Marin County's housing stock increased by almost 43% in the same 10 year period.

#### Type of Unit

Since 1960 there has been a dramatic shift in Sausalito's housing supply from single family structures to multi-unit structures

|     | 1960 |      | 1970 |    | 1977 |    |
|-----|------|------|------|----|------|----|
| SFD | 1628 | 60.6 | 1503 | 44 | 1590 | 42 |
| MFD | 1056 | 39.4 | 1905 | 56 | 2162 | 58 |

The number of single family dwellings declined by 125 from 1960 to 1970, while the number of duplex and apartment units increased by 849. Despite the addition of 87 SFD since 1970, the percentage of such dwellings as part of the City's entire housing stock has continued to decline. While the percentage of these units in the housing stock has decreased in both the City and County, this trend is most pronounced in Sausalito:

|      | Sausalito |       |  | Marin County |  |
|------|-----------|-------|--|--------------|--|
| 1960 | SFD       | 60.6% |  | 82.2%        |  |
|      | MFD       | 39.4% |  | 17.8%        |  |
| 1970 | SFD       | 44.0% |  | 74.0%        |  |
|      | MFD       | 56.0% |  | 26.0%        |  |

These percentage decreases are indicative of:

1. Emphasis in construction of multi-unit structures.
2. The conversion of single family units to duplex or multi-unit uses.
3. The razing of single family dwellings to make way for other residential and non-residential uses.

The increase in multi-unit structures has primarily been in the 5 unit or more building which accounts for 57.4% of the multi-unit structure increase from 1960 to 1970. The number of duplex buildings rose from 464 in 1960 to 806 in 1970. During the period 1971-77, another 170 have been built. Duplex buildings now account for 26% of Sausalito's housing stock.

Block statistics from the 1970 Census documented the variation on number of single family dwellings from area to area within the City. The percentage of single units ranged from a low of 26% in Old Town to a high of 72% in the Waterfront Area.

|                         | Total DU | SFD  | % of units in area |
|-------------------------|----------|------|--------------------|
| Old Town                | 798      | 200  | 25.6               |
| The Hill                | 1093     | 564  | 51.6               |
| New Town                | 764      | 388  | 50.8               |
| Spring Street           | 333      | 133  | 39.9               |
| Nevada Street           | 269      | 78   | 29.0               |
| Waterfront <sup>1</sup> | 166      | 119  | 71.7               |
| CITY TOTAL              | 3423     | 1482 | 43.3               |

<sup>1</sup> Includes all units east of Bridgeway and ends north of City limits to the former heliport area



Despite an increase of almost 750 housing units between 1960 and 1970, the median number of rooms per dwelling unit in Sausalito remained constant at 4.1. Only housing containing eight rooms or more actually declined. In percentage terms, however, there was a slight decrease in units with six or more rooms, while medium sized units of three, four or five rooms accounted for the major portion of new units. In other words the more recently a housing unit was constructed the more likely it was to be of average size. This was due to the proliferation of apartments between 1960 and 1970. In comparison to Marin County as a whole Sausalito has continued to have a median dwelling unit size of 4.1, while the County increased from 5.0 to 5.2 rooms during the same period.

Sausalito is characterized by rental households (63%). It is not surprising, then, that 85% of the City's housing has 0-2 bedrooms. In the County only 47% of all dwelling units are within this category. The percentage of units with 3 bedrooms is only 10% of Sausalito's housing stock, while it comprises 34% of the County's.

| <u>Sausalito</u>   |      |      | <u>Marin County</u> |  |      |
|--------------------|------|------|---------------------|--|------|
| Number of Bedrooms |      | %    |                     |  | %    |
| None               | 170  | 5.3  | 1670                |  | 2.4  |
| 1                  | 1242 | 38.5 | 11350               |  | 16.0 |
| 2                  | 1326 | 41.1 | 20206               |  | 28.4 |
| 3                  | 330  | 10.2 | 24282               |  | 34.3 |
| 4                  | 135  | 4.2  | 11010               |  | 15.5 |
| 5+                 | 23   | .7   | 2397                |  | 3.4  |

Due to the limited availability of units with three, four or more bedrooms in Sausalito, such units have a high owner occupancy rate. In fact, the 1970 census reported that all housing units with four or more bedrooms were owner-occupied, while those with three bedrooms were 84% owner-occupied. There was a dramatic decrease in owner levels in smaller units: 1 and 2 bedroom dwelling units were 14.1 and 29.8% owner occupied respectively.

| <u>Sausalito</u> |       |       |        | <u>Marin County</u> |       |      |        |      |
|------------------|-------|-------|--------|---------------------|-------|------|--------|------|
| No. of bedrooms  | owner | %     | Renter | %                   | Owner | %    | Renter | %    |
| None             | 26    | 15.3  | 144    | 84.7                | 241   | 15.5 | 1310   | 84.5 |
| 1                | 168   | 14.1  | 1022   | 85.9                | 2001  | 18.7 | 8606   | 81.3 |
| 2                | 379   | 29.8  | 894    | 70.2                | 8874  | 46.8 | 10087  | 53.2 |
| 3                | 277   | 83.9  | 53     | 16.1                | 18766 | 79.5 | 4812   | 20.5 |
| 4                | 135   | 100.0 | 0      | 0                   | 9261  | 87.7 | 1304   | 12.3 |
| 5+               | 23    | 100.0 | 0      | 0                   | 2011  | 85.8 | 333    | 14.2 |

The above chart demonstrates that unlike Sausalito, there are housing units with 4 or more bedrooms available for rent in the County. There is also a higher percentage of three bedroom units available to renters in the County, comprising 20.5% of such units.



### Occupancy;

Sausalito has had for the past several decades fewer owner occupied than renter occupied housing units. This trend became more pronounced between 1960 and 1970 when the number of owner occupied housing units increased by only 49, while the number of rental units increased by 749. In terms of percentages, owner occupancy decreased from 42 to 34% during the same period rentals rose from 52 to 63%. These tenure changes are the result of both an increasingly mobile population as well as the fact that an overwhelming percentage of new construction is multi-family.

On a sub-area basis within the City, though, there was in 1970 a substantial variation in the percentage of owners and renters.

|               | Total Units | Owner | %     | Renter | %    | Vacant |     |
|---------------|-------------|-------|-------|--------|------|--------|-----|
| Old Town      | 798         | 237   | 29.7  | 528    | 66.2 | 33     | 4.1 |
| The Hill      | 1093        | 450   | 41.1  | 591    | 54.1 | 52     | 4.8 |
| New Town      | 764         | 269   | 35.2  | 473    | 61.9 | 22     | 2.9 |
| Spring Street | 333         | 79    | 23.7  | 247    | 74.2 | 7      | 2.1 |
| Nevada Street | 269         | 56    | 20.8  | 208    | 77.3 | 5      | 1.9 |
| Waterfront    | 166         | 73    | 44.0  | 92     | 55.4 | 1      | .6  |
| TOTAL:        | 3423        | 1164  | 34.02 | 139    | 62.5 | 120    | 3.5 |

The Waterfront area<sup>1</sup> had the highest percentage of ownerships of any area in the City, while Spring Street and Nevada Street valleys had the lowest. Comparison of the number of single family dwellings with the number of owner-occupied units in each area documents the correspondence between high percentages of single units and high percentages of owner occupancy:

|               | Percent SFD | Percent Owner<br>occupied |
|---------------|-------------|---------------------------|
| Waterfront    | 71.7        | 44.0                      |
| The Hill      | 51.6        | 41.1                      |
| New Town      | 50.8        | 35.2                      |
| Spring Street | 39.9        | 23.7                      |
| Nevada Street | 29.0        | 20.8                      |
| Old Town      | 25.6        | 29.7                      |

The only area where this does not appear to hold true is Old Town where figures show the number of owner occupied units to exceed the number of single units. This could be explained by a significant number of multiple unit structures being occupied by their owners. The fact that the Spring Street and Nevada Street areas have the smallest percentage of owner-occupied housing indicates that many of Sausalito's newer housing units are purchased for investment rather than occupancy by the owners.

The number of vacant units in the City of Sausalito fell from 170 to 117, or 3% of the housing stock between 1960 and 1970 according to the U.S. Census. However, the postal vacancy survey conducted yearly by the U.S. Department of Housing and Urban Development reported a much lower vacancy rate for the last 3 years.

<sup>1</sup>The waterfront area includes all housing units east of Bridgeway and extends North of the City limits to the former heliport area.

|      | <u>Total Units</u> | <u>Vacant Units</u> | <u>% Units Vacant</u> |
|------|--------------------|---------------------|-----------------------|
| 1972 | 4400               | 41                  | .9                    |
| 1973 | 4346               | 54                  | 1.2                   |
| 1974 | 4570               | 32                  | .7                    |

A vacancy rate of less than 5% for apartments or 2% for residences is considered to constitute an extremely tight housing market.<sup>2</sup> Since both apartments and houses in Sausalito fall below these levels, it appears that unusually high pressures have existed and probably will continue to persist for the development of vacant land and the intensification of developed land.

To summarize, in comparison with Marin County it is obvious that Sausalito has a much less stable population. While the number of owner occupied dwellings remained around 59% in the 1960 and 1970 census reports for the County, Sausalito dropped from an already low percentage of 42% to 34%. At the same time single family dwellings in the County increased by 11,500 while decreasing by 115 in Sausalito. However, in both Sausalito and Marin County the ratio of owner occupied dwellings to single family dwellings is approximately the same. In other words, roughly 78% of single dwellings are owner occupied in both areas.

#### Persons Per Dwelling Unit

The median number of persons per dwelling unit is 1.8 in Sausalito, substantially less than most other Bay Area Cities. Median persons per dwelling unit is an indicator of household size, helpful in determining whether housing units in general are large enough to accommodate the typical family unit. Sausalito had a median persons per dwelling unit in 1970 of only 1.8, down from 2.0 in 1960. Both of these figures were dramatically lower than the County's 2.8 in 1960 and 2.5 in 1970.

|                              | <u>1960</u> | <u>1970</u> |
|------------------------------|-------------|-------------|
| Median persons per household | 2.0         | 1.8         |
| Owner-occupied               | 2.3         | 2.0         |
| Renter-occupied              | 1.8         | 1.7         |

This decrease in the ten year period was due to: (1) the increase in rental units, and (2) the increase in the 20 - 34 year age group from 25% to 40% of the population during the period 1960 to 1970.

Owner occupied housing is often apt to have more persons per household than rental units as such housing is usually inhabited by families with children. In Sausalito, however, the low median number of persons per owner-occupied household suggests that a significant percentage is owned by individuals. This is substantiated by the fact that the number of children in Sausalito has gradually declined. Rental housing, at a median of 1.7 persons per household shelters both single individuals and larger groups or families. Over 50% of rental housing is occupied by one person households.

<sup>2</sup> This figure comes from HUD Workable Program Requirements concerning community improvements as outlined in the Housing & Urban Development Act of 1969

Due to the smaller household size, larger dwelling units are sometimes under-utilized. By comparing the number of persons per dwelling unit and the number of bedrooms per dwelling, the excess or deficiency of various size units can be estimated. However, it should be recognized that some larger households will live in small quarters, while some small households live in larger quarters than necessary.

| <u>Size of Household</u> |       | <u>Number of Bedrooms<br/>Reported by Unit</u> |       |
|--------------------------|-------|------------------------------------------------|-------|
| 1 - 3 persons            | 90.5% | 0 - 2 bedrooms                                 | 84.9% |
| 4 or more persons        | 9.5%  | 3 or more bedrooms                             | 15.1% |

The above chart shows that in 1970 there did not appear to be a significant need according to household size for either small or large housing units. This conclusion is based on the assumption that smaller households of 1 - 3 persons require housing of three bedrooms or more, as such households may be composed of individuals rather than family members.

Only 2.3% or 79 dwelling units in Sausalito were overcrowded in 1970 according to census definitions. The Census defines crowded housing units as those with over one person per room. Of course, this measure is not a reliable indicator from house to house as a three bedroom home may or may not have a dining room or den. However, with these two extra rooms in the unit, seven instead of 5 people could live there before the unit would be considered crowded. Using the number of persons per room as a general measure, though, the fact that only 2.3% of all housing units have over one person per room, does document the existence of few crowded housing units. Only .9% of the housing stock or 31 units have over 1.5 persons per room. Despite an increase of almost 750 units between 1960 and 1970, the number of crowded units rose only by 19.

Three and one half percent of all dwelling units in Marin County were crowded according to Census standards compared to 3.2% in Sausalito.

### Cost of Housing in Sausalito

Housing in Marin County was more expensive on the average in 1970 than in any other county in the Bay Area. This is a particularly significant statement considering a comparison of 1970 Census data on the median price of specified owner-occupied units in Sausalito are those in the County showed Sausalito to have a median value of \$45,900, a full \$12,000 higher than the County figure of \$33,900. In fact, only eight communities in the Bay Area have a higher median housing value than does Sausalito. The 1974-75 county tax assessment revealed a \$55,500 average market value for Sausalito home owners. Among the ten other cities in the County, only Belvedere, Ross and Tiburon are reported to have higher assessed values for single family homes. This trend is also evidenced in reports from the Marin County Board of Realtors on the average price of single family residenc sales. The cost of purchasing a home in Sausalito has increased rather consistently since 1969, although not as fast as in the entire County.



|                       | <u>Sausalito</u> |                    | <u>Marin County</u> |                    |
|-----------------------|------------------|--------------------|---------------------|--------------------|
|                       | <u>No. sold</u>  | <u>Aver. Price</u> | <u>No. sold</u>     | <u>Aver. Price</u> |
| 1969                  | 48               | 49,220             | 1978                | 35,405             |
| 1970                  | 36               | 61,365             | 1829                | 37,845             |
| 1971                  | 63               | 52,230             | 2395                | 41,180             |
| 1972                  | 65               | 63,435             | 2611                | 45,985             |
| 1973                  | 66               | 66,610             | 2698                | 51,545             |
| percent increase over |                  |                    |                     |                    |
| 5 year period         |                  | 35%                |                     | 46%                |

The above figures document, in other words, an increase in the value of housing of 35% in 5 years. If separate information were available on newly constructed and older home sales by number of bedrooms, the price statistics would be more meaningful. It should be noted that higher percentage increases in value of homes sold are usually experienced by communities with substantial new construction that serves to upgrade the value of the housing stock. While this appears to be a substantial jump, inflation alone over the 5 year period equalled or exceeded this amount.

The median value of rental housing in Sausalito as reported by the 1970 census was \$188 per month compared to only \$161 for the County. As with owner-occupied housing, Sausalito has, with the exception of four communities, the highest priced rental housing in the 9 county Bay Area. Although figures are not available on the increase since 1970 of rental housing costs, it has no doubt been commensurate with that of the market value of single family homes.

Distribution of reported owner-occupied housing units by price range in 1970 did, however, document the extent to which low and moderate cost housing is available in Sausalito. (These figures include the waterfront area where houseboats are moored, including some properties outside the Sausalito City limits.)

| Value of Housing Units | <u>SAUSALITO</u> |                            | <u>MARIN COUNTY</u> |                            |
|------------------------|------------------|----------------------------|---------------------|----------------------------|
|                        | <u>No. Units</u> | <u>% of Reported Units</u> | <u>No. Units</u>    | <u>% of Reported Units</u> |
| 0-14,999               | 64               | 7.3                        | 794                 | 2.1                        |
| 15,000-19,999          | 32               | 4                          | 2,069               | 5.4                        |
| 20,000-24,999          | 49               | 6                          | 5,139               | 13.4                       |
| TOTAL:                 | 145              | 17.3                       | 8,002               | 20.9                       |

The percentage of housing units valued at 25,000 or less is only slightly less than in the County as a whole.

A comparison of Sausalito and Marin County housing units showed a shortage of units in Sausalito which cost between \$25,000 and \$35,000 (1970 dollars).

|                        | <u>Sausalito</u> | <u>Marin County</u> |
|------------------------|------------------|---------------------|
| Value of housing units | %                | %                   |
| 25-34,999              | 14.7             | 33.0                |
| 35-49,999              | 26               | 27.8                |
| 50,000 or more         | 42               | 18.3                |



An examination of rental costs by price interval demonstrates a relative scarcity of lower cost rental units and abundance of expensive units in Sausalito as compared to all of the County.

| Contract Rent   | <u>Sausalito</u> | <u>Marin County</u> |
|-----------------|------------------|---------------------|
|                 | %                | %                   |
| less than \$100 | 8                | 13.1                |
| 100-149         | 19               | 27.8                |
| 150-199         | 29               | 28.0                |
| 200-249         | 18               | 12.1                |
| 250 or more     | 24               | 12.7                |

The City had few lower cost rental units (less \$150), an average percentage of moderate cost units (\$150-\$199), and a high number of expensive rental units (over \$200). It is not surprising, therefore, that ABAG has estimated 927 households, or 43% of all renters in Sausalito were paying excessive percentages of income for rents.

Rental Units overpaying (Estimate)

| Rent            | 0 BR | 1 BR | 2 BR | 3 BR | 4 BR | Total | %   |
|-----------------|------|------|------|------|------|-------|-----|
| less than \$100 | 12   | 40   | 10   | 0    | 0    | 61    | 6   |
| 100-149         | 13   | 108  | 35   | 0    | 0    | 156   | 17  |
| 150-200         | 33   | 128  | 57   | 0    | 0    | 218   | 24  |
| 200 +           | 0    | 145  | 319  | 28   | 0    | 491   | 53  |
| TOTAL:          | 58   | 420  | 421  | 28   | 0    | 927   |     |
| %               | 6    | 45.5 | 45.5 | 3    | 0    |       | 100 |

Half of those households paying more for rent than is considered optimal were occupying the higher priced units with rent exceeding \$200 per month. One could assume, therefore, that overpayment for housing in Sausalito is more a result of choice rather than a reflection of insufficient income in general. If the households considered to be overpaying on rent for low-moderate income units reduced their expenditures to 25% of their income or less the following number of rental units would have to be subsidized:

| <u>Rental Cost</u> | <u>No. of Units</u> |
|--------------------|---------------------|
| less \$100         | 94                  |
| 100-149            | 79                  |
| 150-200            | 101                 |

### Summary of Low/Moderate Housing Needs

In order for Sausalito to meet the 1970 housing needs of its own low/moderate income population, a substantial supply of moderate to lower cost housing units would have been necessary. This would include in 1970 dollars: 275 additional rental units priced below \$200 per month.

### Public and Subsidized Housing in Sausalito

At the present no public housing is available in Sausalito. However, the City has entered into a cooperation agreement with the County Housing Authority to permit scattered-site, leased public housing. Until recently two units were leased and administered by the Housing Authority of Marin County as subsidized housing under Section 23 of the U.S. Housing Act of 1937, as amended. As of July 31, 1974 the number of leased housing units had decreased from two to one. Since Sausalito has no City housing agency any future additions of low cost housing are possible only through the sponsorship of: (1) private non-profit groups, (2) developers, or (3) the Housing Authority of Marin County.

The Marin County-Wide Initial Housing Element estimated the total number of households in Sausalito eligible for publicly assisted housing to be 630 in 1969. <sup>1</sup>These households should include the 275 estimated by ABAG to be in need of lower priced rental units.

### Age of Housing Stock

Between 1960 and 1970 the census reported that 957 housing units were constructed, or 28% of the City's total housing stock. During the same period however, there was a decrease of 231 units built prior to 1960. Two-thirds of the eliminated units were pre-1940 vintage. Despite this decline, units constructed prior to 1940 still comprised 44% of Sausalito's housing.

| Year built          | SAUSALITO    |      | MARIN COUNTY |      |
|---------------------|--------------|------|--------------|------|
|                     | No. of Units | %    | No. of Units | %    |
| 1965 to March, 1970 | 305          | 9    | 10,400       | 14.8 |
| 1960 to 1964        | 652          | 19   | 15,166       | 21.4 |
| 1950 to 1959        | 673          | 20   | 21,091       | 29.9 |
| 1940 to 1949        | 284          | 8    | 8,617        | 12.2 |
| 1939 or earlier     | 1,494        | 44   | 15,296       | 21.7 |
| TOTAL:              | 3,408        | 100% | 70,570       | 100% |

A comparison with the age of housing units in the entire County highlights the extent to which Sausalito's housing is much older than that of surrounding communities. While 44% of Sausalito's housing was constructed before 1940, only 22% of the County's housing was built prior to this time

### Housing Condition:

Almost 15% of Sausalito's housing was evaluated <sup>1</sup>as deteriorated <sup>2</sup>by the 1960 Census, while another 1.4% was considered dilapidated, beyond rehabilitation. These figures were based on enumerator rather than occupant estimate of housing conditions. Ratings reflected exterior repair or disrepair other than general maintenance.

In 1970, however, the Census reported housing condition using the following factors:

1. Units lacking some or all plumbing facilities.
2. Units lacking adequate heating facilities.
3. Units lacking complete kitchen facilities.

These three factors alone or in combination are not equivalent to the 1960 ratings of sound, deteriorating or dilapidated housing. They are useful, though, in determining the extent to which attention is needed in upgrading of heating, plumbing, and kitchen facilities.

According to 1970 Census figures Sausalito has few housing units reported with deficient facilities.

|                                         | SAUSALITO |                    | MARIN COUNTY |                    |
|-----------------------------------------|-----------|--------------------|--------------|--------------------|
|                                         | # Units   | % of housing stock | # Units      | % of housing stock |
| lacking some or all plumbing facilities | 43        | 1.3                | 647          | .95                |
| inadequate heating                      | 148       | 4.6                | 2,358        | 3.33               |
| lacking complete kitchen facilities     | 41        | 1.2                | 598          | .80                |

Since some units may have one or more of the above problems, one must assume that fewer than 5% of the City's 3423 dwelling units needed such repairs in 1970. This is somewhat higher than the countywide average. 4.8% of all County dwelling units lacking complete kitchen facilities are located in Sausalito as are 6.3 of those with inadequate heating and 6.6% of those lacking some or all plumbing facilities. The

<sup>1</sup> The 1970 Census offers only indicators of housing condition rather than a direct estimate of the number of deteriorated and dilapidated dwelling units. Therefore, these indicators are used in combination with the Marin County Housing Condition Survey, 1971, as well as 1960 Census figures to ascertain the condition of Sausalito housing.

fact that a somewhat higher percentage of Sausalito's housing units are in need of upgrading is probably related to the fact that a substantially higher percentage of Sausalito's housing was built prior to 1940 and the fact that substandard houseboat units were included in the survey.

An analysis of housing conditions by areas within Sausalito points to the concentration of deteriorated dwelling units in the Waterfront area.

|               | # Units lacking<br>some or all<br>plumbing | # Owner | # Renter |
|---------------|--------------------------------------------|---------|----------|
| Old Town      | 6                                          | 2       | 4        |
| The Hill      | 6                                          | 4       | 2        |
| New Town      | 8                                          | 4       | 4        |
| Spring Street | 3                                          | 0       | 3        |
| Nevada Street | 0                                          | 0       | 0        |
| Waterfront    | 20                                         | 12      | 8        |
| TOTAL:        | 43                                         | 22      | 21       |

Almost half of all the units in the City lacking some or all plumbing facilities were in this vicinity in 1970 as were over one quarter of the units reported with overcrowding. Those areas with the least deterioration were the Spring and Nevada Street Valley areas, the location of many of the City's more recently constructed units.

The Marin County Planning Department conducted a housing condition survey in 1971. Each city within the County was asked to designate those areas within their jurisdictions where the most "significant amounts of deteriorating and delapidated housing were thought to exist."<sup>3</sup> Sausalito selected three areas.<sup>4</sup>

|                     | # Units<br>covered | # parcels | % parcels<br>w/deteriorated<br>units | # parcels<br>w/deteriora-<br>tion |
|---------------------|--------------------|-----------|--------------------------------------|-----------------------------------|
| Marinship           | 465                | 192 33.6  | 15.6                                 | 30                                |
| Central             | 805                | 361 63.2  | 9.4                                  | 34                                |
| Houseboats          | 28                 | 18 3.2    | 11.1                                 | 2                                 |
| TOTAL in Sausalito: | 1,298              | 571       | 11.6                                 | 66                                |
| Marin County:       | 19,598             | 14,035    | 9.7                                  | 1,361                             |

<sup>2</sup>Deteriorated Housing is interpreted as feasible to repair.

<sup>3</sup>Marin County Planning Dept., Marin County Housing Condition Survey (1971), p.3

<sup>4</sup>Areas corresponded to Marin County Traffic Zones 302-020, 302-040, 302-050, and 302-030.



571 parcels or 1298 units were checked for housing condition within the City. In terms of dwelling units, over 40% of the City's 1970 housing stock was included in the survey. Parcels rated by the survey were approximately 50% single family and 50% multi-unit structures. Those parcels rated as deteriorated or dilapidated were the sites primarily of single family dwellings. Only 22 out of 66 parcels with deteriorated units, or 1/3, had multiple unit structures.

Each parcel deemed deteriorated or dilapidated was rated on the basis of its premises as well as the structure of the residential unit:

Sausalito Premises Data -

|                                   | SFD | MFD | TOTAL |
|-----------------------------------|-----|-----|-------|
| Inadequate lot size               | 1   | 1   | 2     |
| Access restrictions               | 7   | 2   | 9     |
| Landscaping needing maintenance   | 25  | 13  | 38    |
| Minor refuse                      | 9   | 4   | 13    |
| Deteriorating accessory buildings | 7   | 8   | 15    |

The above chart documents the fact that over 2/3 of the parcels in need of premises improvement are the sites of single family dwellings. Therefore, residents of multiple units did not appear to be more adversely affected than were residents of single units, an often made assumption. It is not clear how these results apply in terms of total units rather than parcels. However, the distribution in the Marinship and Central areas of parcels with characteristics reported above, is informative.

|                                     | Marinship | Central | Total |
|-------------------------------------|-----------|---------|-------|
| Inadequate lot size                 | 2         | 0       | 2     |
| Access restrictions                 | 8         | 1       | 9     |
| Landscaping in need of maintenance. | 18        | 20      | 38    |
| Minor refuse                        | 5         | 8       | 13    |
| Deteriorating accessory building    | 4         | 11      | 15    |

Marinship has the predominant number of parcels with lot size and access problems, while Central Sausalito was reported to have a higher number of accessory buildings in need of repair or replacement. The high incidence of premises deterioration in the Marinship area is significant as only 1/3 of the parcels surveyed in Sausalito were in this portion of the City.

Data on structural condition of residential units, ultimately more important than premises data, outlines the extent to which major repairs are needed in Sausalito's older housing stock. (All of the 66 parcels in question were the sites of frame structures: 55 had wooden siding, while only 11 had stucco siding). Of the 66 parcels classified as having deteriorated housing units, each had one or more of the deficiencies. In other words, some units may have only one aspect which requires repair, while other units may have been found to be in poor condition on several or all of the rating categories.

|                   | SFD % of<br>deter.<br>SFD | MFD % of<br>deter.<br>MFD | TOTAL %<br>of all deter.<br>units |
|-------------------|---------------------------|---------------------------|-----------------------------------|
| Deterioration of: |                           |                           |                                   |
| Walls             | 12 29.3                   | 5 22.7                    | 17 25.8                           |
| Roof              | 15 36.6                   | 10 45.5                   | 25 37.9                           |
| Foundation        | 12 29.3                   | 11 50.0                   | 23 34.8                           |
| Paint appearance  | 30 73.2                   | 20 90.9                   | 50 75.8                           |
| Other exterior    | 40 97.6                   | 22 100.0                  | 62 93.9                           |

An examination of structure data by single family and multiple unit structures indicates, as did the premises data, that single family dwellings had more deterioration than apartment buildings despite the fact that each type was equally represented in the sample. However, multiple dwelling units had a higher incidence of reported problems per unit than did single family dwellings. This is particularly true of roof structure and foundation deterioration, which half the deteriorated parcels with multiple units are reported to have.

Data on structural deterioration by areas in Sausalito points again to the fact that the Marinship area has more widespread deterioration than does the Central area. More than half of the reports of less than sound housing structure in Sausalito were located in the Marinship area despite the fact that only 1/3 of all units surveyed were in this portion of the City.

|                   | Sausalito<br># units | Marin-<br>ship | Central  | Houseboats |
|-------------------|----------------------|----------------|----------|------------|
| Deterioration of: |                      |                |          |            |
| Walls             | 19                   | 12 40.0        | 5 14.7   | 2          |
| Roof              | 25                   | 14 46.7        | 11 32.4  | 0          |
| Foundation        | 23                   | 15 50.0        | 8 23.5   | NA         |
| Paint             | 50                   | 22 73.3        | 26 76.5  | 2          |
| Other exterior    | 64                   | 28 93.3        | 34 100.0 | 2          |

Of the thirty deteriorated units in the Marinship area 40% were in need of wall structure repair, 47% in need of roof structure improvements, and 50% required either rebuilding or replacement of foundations. In comparison, similar problems in the Central area were reported in less than 1/3 of the deteriorated units.

Approximately 75% of the deteriorated units in each area needed paint. However, peeling or missing paint is not an accurate indicator of structural condition. Rather, it is often a characteristic of buildings in need of more maintenance than they have received.

#### Summary of Housing Condition

The 1960 Census reported that 16% of the City's housing was either deteriorated or dilapidated, a total of 436 units. In 1971 the Marin County Housing Condition Survey, similar to but not the same as the 1960 Census, checked 40% of the City's dwelling units. These residences were located in those sub-areas of the City considered most likely to contain housing in need of repair and improvement. Only 66 parcels were found to have deterioration or 11.6%. Of this number, approximately 2/3 of the parcels contained single family units and the other 1/3 multiple family units.<sup>3</sup>

<sup>3</sup>This is not translated into units in survey results.

By assuming the average multiple unit structure has 3.6 units, one can estimate that 110 units in the sample area were deteriorated. An expansion of these results to the entire City would suggest a decrease from 16.0% in 1960 to 8.9% in 1971 of deteriorated housing stock. In numerical terms, the amount of deteriorated units would have decreased from 436 in 1960 to 304 in 1971 during the same period the housing stock increased by almost 800 units net. Since those areas surveyed in 1971 were those expected to have the highest percentage of deterioration, it can be assumed that fewer than 11.6% of the City's residential structures were actually in a deteriorated condition.

Based on exterior housing condition indicators, it appears that a significant decrease in deteriorated housing occurred between 1960 and 1971. However, the method of analysis used in both the 1960 census and the 1971 Marin County Housing Condition Survey, was designed to maximize quantity of results rather than in-depth analysis of those structural problems in need of attention. In other words, whatever the results specified in the above mentioned reports, the fact remains that over 44% of Sausalito dwelling units were constructed prior to 1940 and many of these before 1920. Housing units of this vintage often have condition problems which are in need of improvement: either repair, or replacement. Many of these specific deficiencies would not be detected in a purely exterior survey.

Aside from 1970 Census data on heating, plumbing, and kitchen facilities, no data is available on housing condition pertaining to:

1. Electrical wiring and lighting, including number of circuits, number of amp service;
2. Hot water heaters including temp. release valve.
3. Mudsill deterioration.
4. Termites and dry rot.

Therefore, accurate estimates of the amount of deterioration in Sausalito housing units are not possible. However, it should be sufficient to say that at the least if much of the older housing in Sausalito is to be maintained in liveable condition in future years, serious consideration must be given to:

1. The update of electrical wiring,
2. Replacement of brick foundations,
3. Improvement of plumbing facilities, and
4. Modernization and ventilation of the heating plant.

Without these actions much of the pre 1940 housing in Sausalito may in time become too hazardous for occupancy.

Whether or not these residential structures receive the necessary improvements is an important consideration to the City as many older units are situated on small lots. Rebuilding on small lots may necessitate changes in reconstruction as many of these units do not meet current side and rear yard set back requirements. In addition, changes in housing styles from the long narrow house of fifty years ago to the squarer house of today may necessitate lot realignment.





### PART III

#### HOUSING PROBLEMS OF THE ELDERLY

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Residents of Sausalito often express concern over specific problems that elderly residents face in this City. One of the most prominently mentioned is the high cost of housing for those on fixed incomes.

Since 1960 the number of persons over 65 years of age residing in Sausalito has risen to 592 or 9% of the population. According to the 1970 Census, 126 of these individuals or 19% had incomes below the poverty level. Certainly, this is a significant number. Only 11 lived with family members, while the remaining 115 elderly persons either lived alone or presumably with others in similar circumstances. If anything, the amount of need detectable through the census probably understates the situation due to low monetary level upon which poverty status was based.

The above information should be juxtaposed with the fact that Sausalito ranked 5th and 9th respectively in communities of the 9 County Bay Area in the 1970 cost or value of rental and owner occupied housing. While some low and moderate cost housing is available in Sausalito, there is no way to determine except by a door to door survey whether or not this housing is lived in by those most in need, including the elderly. However, it would be fair to say that in any case, it must be extremely difficult for long time Sausalito residents living on fixed incomes to maintain and retain their homes with the cost of living and property taxes as high as they are now.

Those elderly residents living in small cottages or second units are, perhaps, in a more tenable position as long as this housing continues to be available. Cottages, often located in back of "turn-of-the-century" housing in the older parts of town, may be disappearing as (1) parcels are cleared and rebuilt with more profitable uses or (2) as these buildings deteriorate and become uninhabitable. Once removed from the housing stock, it is almost certain that such small and inexpensive units will not be replaced with similar units. (The incentive to demolish such units in order to gain more intense use of land in R-3 Zones may be averted by reducing the allowed density in R-3 areas).



#### PART IV

#### PORTIONS OF THE MARIN COUNTYWIDE PLAN RELATING TO HOUSING IN SAUSALITO

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The Countywide Plan adopted in October, 1973, is a combination of both (1) reports on the existing housing situation and (2) policy recommendations for specific housing programs. While the main thrust of the plan is to preserve the character of Marin County by achieving population growth of no more than 90,400 between 1970 and 1990, recognition is given to the fact that substantial effort will be necessary to merely retain the current proportion of low and moderate income dwelling units available in the housing stock.

One important aspect of the plan is the identification by planning area of the number of units which could be constructed within the growth limitations suggested by the plan. This would be achieved through the use of development controls and open space preservation.

Several portions of the Countywide Plan pertain directly to the Sausalito situation, particularly recommendations concerning Wolfback Ridge and the Richardson Bay Planning Area growth allocations. An analysis of these sections will provide a basis for determining whether or not Sausalito is likely to exceed County growth figures by 1990.

Wolfback Ridge was designated as a greenbelt community separator in the plan for environmental corridors. Inclusion of Wolfback Ridge as a part of the GGNRA has preserved this area as permanent open space.

Growth guidelines specified for the Richardson Bay Planning Area are an attempt to suggest what level of countywide growth might occur in the area without exceeding the goal of 300,000 population in the County by 1990. Recommendations in the Countywide Plan for the Richardson Bay Communities are included in this report for reference. In 1970 Sausalito represented:

- 14.6% of the planning area population.
- 20.2% of the planning area dwelling units.

By 1990, Sausalito would contain under the plan only 1208 additional dwelling units or 19.3% of the planning area total. For the period 1970-77, building permits for 408 units have been issued or 34% of Sausalito's growth allocation. Over 20 years (to 1990) only 60.4 units per year could be constructed if the 1990 population goal were to be achieved. During the period 1970-77 Sausalito has averaged 51 units per year, somewhat below the suggested rate. In any event it would appear that residential development in Sausalito is within an acceptable range of county projections for 1990. The extent to which this is related to the current moratorium on water hookups, and former City moratoriums on development in open space areas cannot be determined.

The Marina Vista development, which has accounted for much of Sausalito's growth since 1970, is nearing completion. The whiskey Springs development has 47 units under construction and 156 additional units approved by the City of Sausalito and currently lacks water connections. Unless any further sizeable development is initiated, the rate of residential construction may decrease significantly after 1980.



#### EIR SUPPLEMENT

This document was prepared as an amendment to the Sausalito General Plan. The policies contained within this element are consistent with the policies of the remainder of the General Plan and the State Law requiring Housing Elements. The primary intent of this Housing Element is to establish a framework in which housing problems are identified toward formulating a set of programs most useful and appropriate in promoting the objectives of maintaining and increasing decent housing for all economic segments of the community and for groups which may be identified as possessing special housing needs.

With the above philosophy in mind, this document is submitted as meeting the intent of the CEQA and no separate EIR is required as stated in Section 15148 of the California Environmental Quality Act.



RESOLUTION NO. 3523

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SAUSALITO  
AMENDING THE GENERAL PLAN WITH RESPECT TO  
INSTITUTIONAL LAND USE

WHEREAS, the Planning Commission has certified the Final Environmental Impact Report on interim adaptive reuse of the Martin Luther King School site which was prepared for the City of Sausalito by Teresa Burns and Doug Donaldson; and

WHEREAS, the Planning Commission of the City of Sausalito, after public hearings held in accordance with the requirements of the Planning and Zoning Law, has recommended that the Sausalito City Council amend the Sausalito General Plan as hereinafter set forth; and

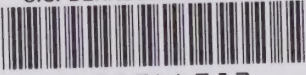
WHEREAS, the Sausalito City Council, in accordance with the Planning and Zoning Law, has held public hearings on said recommendation:

NOW, THEREFORE, it is hereby resolved, ordered and declared as follows:

1. That the Sausalito General Plan, Part II, BASIC ELEMENTS OF THE PLAN, LAND USE ELEMENT, Institutions, Section 246, Principles, is hereby amended to add the underlined language to Principle No. 5:

- "5. Where mutually desirable and advantageous, school sites within the Planning Area should be used jointly through City and School District cooperation. Where appropriate, community -serving facilities such as assembly room suitable for community meetings, a swimming pool, gymnasium, playing fields and courts should be available for local public use when not in conflict with the operational function of either School or District.  
Property designated for institutional use may





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be used on an interim basis for low intensity,  
commercial/industrial businesses. Such  
interim uses may be accommodated if the site  
has been designated for eventual public use."

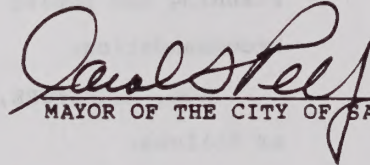
3. There shall be endorsed upon the Sausalito General Plan on file in the office of the City Clerk of the City of Sausalito a notation of the adoption of this resolution amending said General Plan.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Sausalito held on the 17th day of June, 1986, by the following vote:

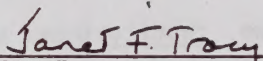
AYES: Councilmen: Mitchell, Phillips, Sweeny, Taber, Mayor Peltz

NOES: Councilmen: None

ABSENT: Councilmen: None

  
MAYOR OF THE CITY OF SAUSALITO

ATTEST:

  
CITY CLERK